

Two Rock Br.

2

Loc. 1107

POLES

470

LEVEL

14.113.0137

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100 00	0 44	100.00	0.87	99.99	1.31	89
1	99.98	1 75	99 98	2 18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99 92	3.93	99 91	4 36	99.88	4.80	87
3	99.86	5.23	99 84	5.67	99.81	6.10	99.79	6.54	86
4	99 76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99 54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99 25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98 48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19 51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24 62	96.81	25 04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27 98	95.88	28 40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30 07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35 43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38 67	67
23	92.05	39.07	91.88	39 47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89 69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48 86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60 53	79.34	60.88	79.07	61 22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	





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" 33-38 - Levels on Relocation Sta. 28+00 - Sta. 28+50

Page 48 - Differential Levels for Water-Tank
Site - Two Rocks

" 49 - Differential Levels for Elev. of Creek at
Two Rocks.

Page 24-31 Levels on Relocations - Sta. 198+00 - Sta. 284+17

" 50-51 - Profile of Pipe-line to Two Rocks.

B.M's. on next page
Poles

p.p. 39-

$$\begin{array}{r}
 1450 \\
 \sim 5 \\
 \hline
 7250 \\
 2900 \\
 \hline
 56250
 \end{array}$$

$$\begin{array}{r}
 8000 \\
 7540 \\
 \hline
 3.6.0
 \end{array}$$

$$200 + 50 = 250 \text{ E/100000}$$

$$215 = 76.4$$

$$189 = 2290 - 0.25$$

$$200 + 20 = 220 \text{ CC } 06'' .15 = 03$$

$$11 + 80 = 91 \text{ EC}$$

#3

#4

#5

#6

#7

#8

#9

B. M.'s

			ELEV.
# 3	Nail in Top First Fence Post west of Gate Post opp. Sta	4+00	55.40
# 4	Nail in Top Eucliptus Shrub Left of Sta	17+82	77.77
# 5	Nail in Hub at N.E. Corner of Cross Road Cauterham R Sta.	29+60	93.92
# 6	Nail in Hub 2' N. of Co. Road fence 25' left Sta.	35+40	102.86
# 7	Nail in projection on W. Side 20' Eucliptus tree 20' left Sta.	42+25	114.39
# 8	Nail in Hub Post 10' left Sta.	52+53	129.58
# 9	Nail in Hub near Cold fence St.	57+70	135.71

PROFILE LEVELS

"L" ^{of} LINE.

Sta.	B.S.	H.I.	F.S.	Elev.
B.M.	4.45	302.21		298.76
B.M.	6.37	157.68		151.31
T.P.			1.64	156.54
	5.94	161.98		
0+00			3.0	158.98
1			2.25	159.73
2			1.4	159.63 160.58
B.M.			1.50	157.48
T.P.			1.26	160.72
	4.37	165.1		
3 + 09.3			2.0	162.11
+21.9				160.8
4 125.6 - 158.7			1.8	161.0 160.81
5			3.4	161.71
+57			2.85	162.56
6 +66 - 162.3			5.8	159.81
65			6.9	158.21
+56			8.25	156.16
75			6.95	158.16
+66			3.5	161.61
7			3.0	162.11
+145			1.7	163.41
8			1.51	165.60
9			1.65	163.46
B.M.			2.12	163.91
10+00			2.26	162.85
11				
T.P.				

Matthew - Levelman
Zoberbier - Rod

June 17, 1912.

Weather: Windy

Four nails on Cap R. side Trestle #14 of P. & G. R.R.

R Nail top post R. of Way fence - L. of Sta. 2+00.

Sta. 3+50 - R. of Way fence - P. & G. R.R.

Bottom of Creek

"A" line B.M. - Assumed Elev. of 386' ^{298.10}

7 P				162.85	
12	8.34	171.19			
127702			6.7	164.49	
+133			6.2	164.99	
13			5.1	166.09	
14			4.05	167.14	
15			1.0	190.19	
T.P.			0.68	170.51	
	9.38	179.89			
16			6.75	173.14	
17			5.7	174.19	
18			3.5	176.39	
19			2.0	177.89	
T.P.	10.9		1.30	178.59	
	10.93	189.52			
20			8.2	181.32	
13				180.72	
+20			7.7	181.82	
+50			7.7	181.82	
+85			8.0	181.52	
+90			5.45	183.07	
21			5.4	184.13	
+08			6.7	182.63	
B.M.			1.89	186.63	
+14			5.75	183.77	
22			3.35	186.17	
23			2.90	188.63	
				187.63	

C/17-120

$$\begin{array}{r} 57 \\ 13 \\ \hline 74 \end{array}$$

East fence road

C road to "L" line

West fence Road Sta. 20+40

→ Rod should be 189 making Elev. of BM = 187.63.

3 Nail in top of stump - 75' L. Sta. 21+00.

189.52

T.P.

0.46

187.06

8.58

197.64

24

7.45

190.19

25

5.7

191.94

+8.5

3.65

193.99

26

4.4

193.24

27

3.25

194.39

+13.33

3.1

194.54

28

1.95

195.69

T.P.

1.42

196.22

7.96

203.58

29

6.3

197.28

30

5.0

198.58

31

3.95

199.63

32

1.0

202.28

T.P.

0.56

203.02

11.78

214.80

+80.

11.5

203.30

33

10.7

204.10

+12

10.6

204.30

+63.33

9.2

205.60

34

7.8

207.00

35

4.15

210.65

36

4.3

210.50

+12

4.4

210.40

6/17-12

Sta. 25+85 - fence of 15 to 0

Continued on p.p. 23

Cancelled
See page 32

6/18-12

Sta 31+00 - S fence County Road

" 32+00 - " "

Sta 32+80 - East fence cross road

" 33+90 - "

" 33+12 - West "

Sta 36+12 - fence (field)

214.80

36+63³³

5.45 209.35

37

6.15 208.65

38

5.2 209.60

+63³³

2.9 211.50

B.M.

2.08⁷ 212.23

1273 225.46

39

13.3 212.16

+45

12.6 212.86

40

18.1 207.36

+17

10.05 212.41

+36

12.45 213.01

+57

17.28 208.26

+80

10.9 214.56

41

10.05 215.41

42

5.3 220.16

43

1.3 224.16

T.P.

0.30 225.16

9.37 234.53

44

9.15 225.38

+26³⁴

8.05 226.48

+55

7.5 227.03

+57

9.65 224.88

+62

7.3 227.25

45

5.7 228.83

46

385 230.68

Matthew - Level
Zoberbier - Rod

(RM)

4

JUNE 18, 1912.

Weather: A.M. - slight breeze P.M. - Very Windy.

Nail in Hub 2' N. North fence County Road, 140'

Sta. 58+00

s. edge creek

St 40+36 - Edge Creek

" 40+57 - Rott. "

" 40+80 - West Edge "

44+57 - Rott. Ditch

234.53

46+7725

3.3 231.23

47

3.25 231.28

48

2.8 231.73

49

3.6 230.93

TP

520 239.33

7.63 238.96

50

6.9 232.06

51

545 233.51

52

4.85 234.11

53

2.15 236.81

TP

1.16 237.80

8.86 246.66

7.32 239.34

54

6.8 239.86

55

6.4 240.26

56

6.45 240.21

~~57~~

+50

6.7 239.96

+90

8.2 238.46

+95

10.75 235.91

59

9.85 236.81

+05

7.9 238.96

58

5.15 241.51

59

3.4 243.26

+22

3.8 242.86

+4.3

5.15 241.51

$$\begin{array}{r}
 239.34 \\
 110 \\
 \hline
 129.34 \\
 34 \\
 38 \\
 21
 \end{array}$$

Check on 'A' Line Bm. (4' 50+00) 373.93 (Assumed Error)

56+90 - East Edge Creek (dry)

" + 95 - Bott. "

W

57+05 - West edge "

59+43 - Bott. Ditch

		246.00		
59.71			27	243.96
60			23	244.36
B.M.			1.2	245.46
	9.49	254.95		
61			7.7	244.25
+28			7.8	247.15
+60			8.95	246.00
62			6.2	248.75
63			1.95	253.00
T.P.			0.73	254.22
	9.38	263.60		
			756	256.04
64			6.6	257.00
+32			7.3	256.30
+42			10.6	253.00
+52			7.2	256.40
65			6.1	257.50
66			4.4	259.20
+78			3.4	260.30
+88			0.6	263.00
67			1.4	262.20
T.P.			1.56	262.04
+16	127	269.31		
+26			8.1	261.31
+22			6.9	262.41
+46			6.9	262.41

Nail's Hub near County Road fence, L. Sta. 90+50

61+60 - Bottle Ditch

Check on 'A' line B.M. - Sta. 60+25 - Elev. 396.77

East Edge Creek

Bottle. "

West " "

67

269.31

+55

5.7 263.61

68

6.5 262.81

+00

7.9 261.41

+07

6.8 262.51

69

4.8 264.51

+60

3.9 265.41

70

1.9 267.41

71

1.4 267.91

72

1.7 267.61

T.P.

1.96 268.35

4.97 272.32

~~4.6~~ ?

+50

1.7 270.62

+70

3.3 269.02

73

2.5 269.82

+65

1.35 270.97

74

1.9 270.12

75

4.3 268.02

+67⁰³

4.25 268.07

76

6.9 265.12

+30

8.75 263.57

+75

11.0 261.32

77

10.4 261.92

77.39⁵³

10.7 261.62

T.P.

10.64³ 261.689

B.M.

333 268.99

69+60 - fence 15 ¢

71+00 - Edge old Ry. Cut.

Not in the b. by County Rd. fence, L Sta 757+00

T.P.		261.69
	0.64	262.33
+80		2.25 259.38
78		3.6 258.73
79		6.3 256.03
80		9.7 252.63
81		13.0 249.33
T.P.		12.53 249.80
	0.80	250.60
82		2.45 248.15
83		5.95 244.65
84		7.2 243.40
85		8.4 242.20
86		5.75 241.85
T.P.		8.12 242.48
	2.02	244.50
87		4.5 240.00
B.M.		1.985 242.525
+24		3.4 241.10
88		5.4 239.10
89		7.4 237.10
90		9.0 235.50
T.P.		8.38 236.12
	0.53	236.65
+75		3.4 233.35
+85		7.4 229.35

~~Cancelled
see page 38~~

~~{ Objects on "A" Line BM (Ass. Elev. 377.91) }~~

~~← Tack in notch of fence post, 10' L., Sta 87+24~~

~~Sta. 88+50 Beg. of old Ry. Fill.~~

~~Top old culvert (draw)~~

236.65

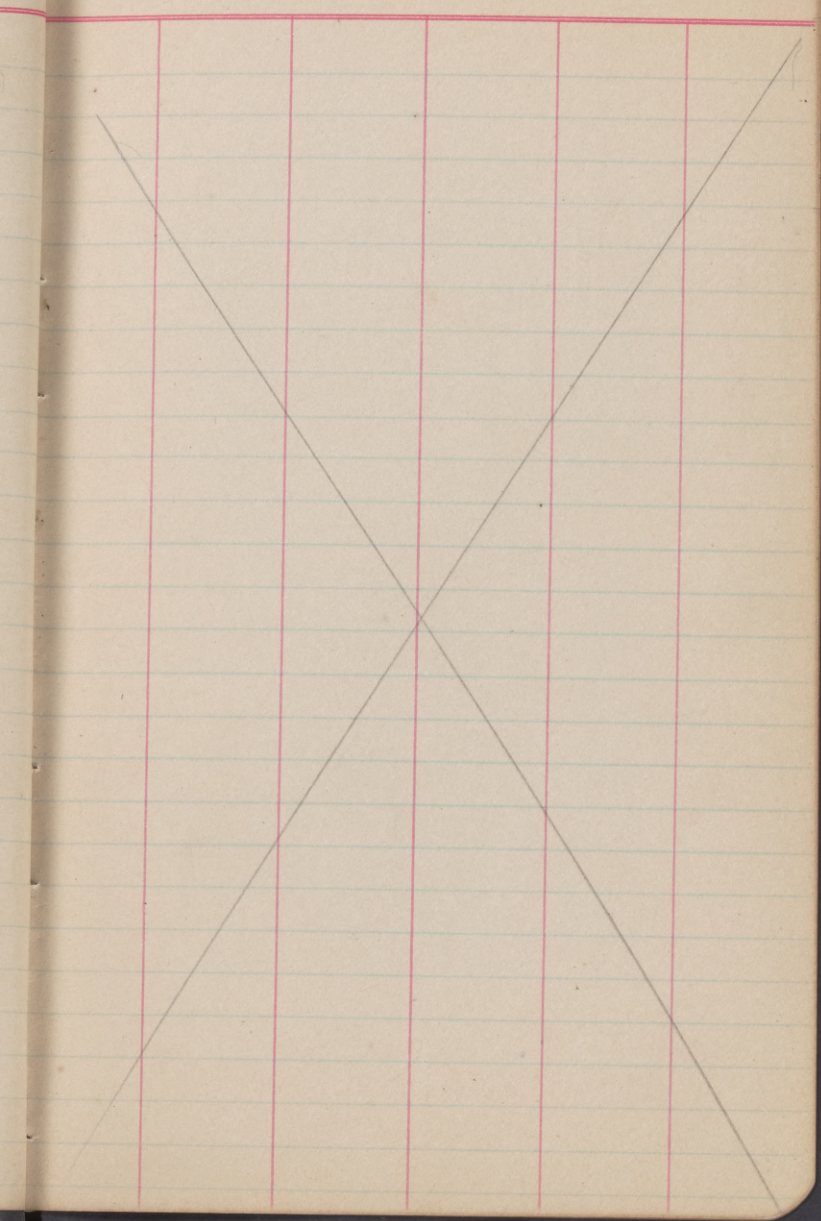
91	4.95	231.70
+18	3.4	233.25
+40	4.9	231.75
+65	3.9	232.75
+88	2.8	233.85
92	3.1	233.55
+35	3.9	232.75
+55	6.3	230.45
+70	5.3	231.35
+85	5.2	231.45
+90	4.7	231.95
93	6.5	230.15
+05	5.8	230.85
+80	13.2	223.45
T.P.	11.23	225.92

0.50 225.92

94	1.25	224.67
95	4.2	221.72
+65	5.2	220.92
96	8.95	216.97
97	10.0	215.92
T.P.	9.45	216.47

0.58 217.05

98	3.2	213.85
99	4.05	213.00



21765

4.33 212.72

100 4.8 212.25

101 6.7 210.55

102 6.2 210.85

103 8.15 208.90

T.P. 7.32 209.73

306 212.79

104 3.65 209.14

+085 3.75 209.04

105 4.65 208.14

106 5.85 206.94

107 5.6 207.19

108 6.7 206.09

T.P. 6.64 206.15

242 208.57

109 3.6 204.97

110 3.1 205.47

+40 2.95 205.62

+85 4.4 204.17

111 4.5 204.07

112 4.8 203.77

113 5.25 203.52

+14 4.0 204.57

+55 4.2 204.37

114 5.9 202.67

Section "A" line 13W 15th A 2425-133 E 1/4 3424-3
 Willow
 Not in base of tree, 40' L 5th L 100+00

6/19-12

208.57

T.P.

5.07 203.51

114 2.86 206.35

+43

3.9 202.46

+55

4.8 201.56

+70

3.9 202.46

115

4.05 202.31

116

4.5 201.86

117

4.5 201.86

+20

4.6 201.76

+26

5.3 201.06

+32

4.6 201.76

118

4.7 201.66

119

4.9 201.46

120

4.7 201.66

T.P.

4.66 201.70

3.58 205.28

121

4.3 200.98

122+16⁴⁵

4.25 201.03

123

4.05 201.23

B.N.

4.03 201.35

124

4.86 200.42

125

4.2 201.08

126

4.8 200.48

127

5.1 200.18

128

5.1 200.18

JUNE 19, 1912.

11

Matthew - Level
Zoberbier - Rod (A.M.)
Cope - " (P.M.)

Weather: A.M. - slight wind
P.M. - very windy

Nail in Hub, 100' L. Sta. 123+00.

Check on "A" Line B.M. (Elev 335.09) at Sta "A" 120+00.

205.28

T.P.

4.58 200.70

3.73 204.43

128

5.1 199.33

129

4.5 199.93

130

5.1 199.33

131

4.95 199.68

130+50

5.8 198.63

+65

4.2 200.23

131

4.75 199.68

132

5.1 198.73

133

6.15 198.28

134

5.25 199.18

T.P.

5.06 199.37

5.01 204.58

135

4.6 199.78

136

4.65 199.73

137

4.7 199.68

+90²⁵

5.4 198.98

138

5.45 198.93

139

6.0 198.38

140

6.6 198.78

B.M.

3.78 200.60

3.33 203.93

140+40

6.2 197.73

+45

7.0 196.93

+55

6.9 197.03

Nail in post S.E. cor. bridge County Road, R. Sta. 140+60

West fence County Road

203.93

140+60 4.4 199.53

+72 4.35 199.58

+85 7.0 196.93

141 6.4 197.53

+02 6.2 197.73

142 6.7 197.23

143 6.3 197.63

144 5.8 198.13

145 6.5 197.43

146 7.1 196.83

+65³³ 6.95 196.98

147 7.0 196.93

T.P. 6.13 197.80

4.17 201.97

148 5.1 196.87

149 4.9 197.07

150 5.25 196.72

151 5.35 196.62

152 5.1 196.87

153 4.6 197.37

154 5.5 196.47

155 6.5 195.47

156+10⁰⁴ 6.9 195.07

T.P. 6.58 195.39

6.63 202.02

Grade County Road

140+00

140+70

East fence County Road

Sta. 150+00 - N. fence County Road.

Sta. 154+00 = 155+00 (Mistake in marking)

202.02

B.M.

403 197.99

157

5.25 196.77

+25

4.7 197.32

+25

5.0 197.02

158

4.8 197.22

159

4.4 197.62

160

4.2 197.82

+75

3.8 198.32

161

3.65 198.37

162

3.1 198.92

T.P.

2.58 199.14

2.74 201.88

163

2.9 198.98

+25

3.3 198.55

164

2.4 199.48

+15

3.8 199.08

+20

4.5 197.38

+25

2.8 199.08

165

4.2 197.68

166

4.8 197.08

167

5.25 196.63

168

5.85 196.03

T.P.

5.85 196.03

3.41 199.44

+90

4.3 195.14

At in S.W. cor. Bridge Stringer, L Sta. 156+50

This old "4" B.M. (Assumed Elev. 332.61 ft Sta 154+35)

Sta 156+00 - Cross N. fence County Rd.

Sta. 157+25 - Crosses fence $\perp^S$.

" 157+35 - $\perp$ Private Road

$\perp$ County Road.

Bed of Creek.

1990

169	5.35	194.09
170	5.5	193.94
171	5.05	194.39
B.M.	1.06	195.38
172	5.55	193.89
173	4.95	194.49
174	3.25	196.19
T.P.	3.25	196.19
5781	202.00	
175	5.35	196.65
+204	5.5	196.50
+30	5.6	196.40
176	5.1	196.90
177	4.55	197.15
178	4.45	197.55
80. +25	4.85	197.15
C.C.(4°2')	5.15	196.95
Rt +70	5.15	196.85
C.C.(2°3')	5.0	197.00
179+15	5.2	196.80
T.P.	5.21	196.79
282	199.61	?
+50	2.7	196.91
180	2.8	196.81
+50	3.5	195.96

Nail in notch on Post of fence, R Sta. 17/150

Crosses field fence (E.g. Grain field)

1.9861

181 3.85 195.76

+50 4.5 195.11

182 4.9 194.71

+50 50.5 194.56

183 5.3 194.31

+50 5.25 194.36

184 5.0 194.61

B.M. 3.96 195.65

T.P. 4.91 194.70

3.58 198.28

+2560 3.8 194.48

C.C. (3.2°) 3.95 194.33

C.C. (6°) 4.4 193.88

185 4.3 193.98

186 4.3 193.98

187 4.5 193.78

+85 3.5 194.78

188 5.75 192.53

+10 3.5 194.78

189 4.85 193.43

190 6.3 191.98

T.P. 6.04 192.24

253 194.77

191 3.6 191.17

192 4.1 190.67

Narrow notch in post (fence), R. Sta. 104 + 25

Crosses fence (field) End Grap field

East Edge Creek

Both Creek (dry)

West Edge "

194.77

P.O.T.		
193	4.5	190.27
194	4.8	189.97
195	5.45	189.22
196	6.05	188.72
T.P.	5.80	188.77

4.34 193.31

+68 ¹⁵	4.9	188.41
C.C. (1'30")	4.8	188.51
C.C. (6'30")	5.05	188.26
197.58	5.0	188.31

198	4.9	188.91
-----	-----	--------

+50	5.5	187.81
-----	-----	--------

199	5.9	187.41
-----	-----	--------

+50	5.3	188.11
-----	-----	--------

200	5.0	188.31
-----	-----	--------

+50	6.15	187.16
-----	------	--------

201	5.5	187.81
-----	-----	--------

T.P.	5.19	188.12
------	------	--------

758	11.24	199.36
-----	-------	--------

+50	9.45	189.41
-----	------	--------

202	8.5	190.86
-----	-----	--------

+30 ²³	6.65	192.71
-------------------	------	--------

C.C. (5'20")	5.35	192.01
--------------	------	--------

C.C. (6'10")	3.85	195.51
--------------	------	--------

203+20 ²²	39.5	196.01
----------------------	------	--------

Continued on p. 24

Balanced to this TP 6/21-12.

19936

203+25

3.1

196.26

B.M.

4.01

195.35

203+50

3.2

196.10

T.P.

1.85

197.51

2.08 199.59

204

2.9

197.19

+50

3.7

195.89

205

4.4

195.19

206

6.1

193.49

207

6.9

192.69

T.P.

6.56

193.03

1.46 194.49

208

2.8

191.69

209

4.65

189.84

210

5.6

188.89

211

5.9

188.59

212

7.7

186.79

T.P.

7.46

187.03

2.60 189.63

213

4.65

184.98

214

4.6

185.03

215

4.3

185.43

216

3.8

185.83

217

2.85

186.98

T.P.

2.49

187.14

2.57 194.71

Sta 203+25 - South fence County Rd.

Nail in notch at base Gumtree - L. 203+25

County Road

County Road

Sta. 204+80 - County Rd fence (Beg. Grain field)

194.71

218		7.9	186.51
+25		9.5	185.21
+60		7.5	187.21
219		7.55	187.16
		7.5	
220		3.45	191.26
221		3.75	190.96
222		8.75	185.96
B.M.		10.41	184.30
	338	187.68	
223		4.2	183.48
224		3.85	183.83
225		3.9	183.78
226		3.3	184.38
TP:		3.10	184.58
	2.91	187.52	
227		3.15	184.37
228		4.25	183.27
229		4.45	183.07
230		4.85	182.67
TP		3.59	183.93
	1.63	185.56	
+60		2.3	183.26
231		2.3	183.26
232		3.5	182.06

218+25 - End grain field - Beg. Orchard

Nail in Hub near fence post - 125' L Sta. 120+00
(C/20-12)

End of orchard
Nail in Fence post R. Sta. 230+50
Field Fence

185.56

233 3.85 181.71

234 4.6 180.96

235 4.45 181.11

236

TP 4.28 181.28

2.95 184.23

236 3.7 180.53

237 4.0 180.23

238 4.1 180.13

239 3.75 180.48

240 3.2 181.03

241 3.6 180.63

TP 3.47 180.76

2.95 183.71

242 3.7 180.01

243 3.8 179.91

B.M. 2.83 180.88

244 3.85 179.86

245 4.25 179.46

246 4.15 179.56

TP 4.14 179.57

4.18 183.95

247 4.75 179.00

+85 4.8 178.95

248 7.9 175.85

JUNE 20, 1912

20

Matthew - level man
Cope - Rod
Weather - Very Windy

Nail in notch on fence post, 50' L Sta. 243+50

Field fence

T.P. in Ginny Sta. 341+00

Edge Creek (dry)

Butt "

183.75

248.45

7.3 176.45

+80

7.2 176.55

249

4.6 179.15

+76⁰⁶

3.4 180.85

TP

1.54 182.21

6.76 188.97

250

8.05 180.92

251

6.2 182.77

252

4.65 184.32

253

4.4 184.57

254

5.05 183.92

255

6.25 182.72

TP

5.86 183.11

1.72 184.83

+10

2.05 182.78

256

1.1 180.73

+20

4.0 180.83

+25

6.3 178.50

+30

4.2 180.63

257

4.7 180.13

258

3.8 181.03

259

3.85 180.98

260

4.8 180.03

TP

4.29 180.54

246 183.00

Bett. Creek

" "

Edge " bank

Field fence - Beg. Hay field

Nail in post (fence) 5' L. Sta. 299+76.45

Bett. Ditch

Sta.	B.S.	H.I.	F.S.	Elev.
		183.00		
261			3.7	179.30
262			3.7	179.30
+25			4.5	178.56
+35			3.9	179.10
B.M.			4.98	178.22
+90			4.05	178.95
263			4.7	178.30
264			5.0	178.00
265			5.6	177.40
TP			5.62	177.38
	628	183.66		
266			6.7	176.96
267			4.95	178.71
268			4.5	179.16
269			4.65	179.01
270			4.8	178.86
TP			4.80	178.86
	265	186.51		
271			6.75	179.76
272			5.25	181.26
273			3.3	183.21
274			2.15	184.36
275			1.2	185.31
TP			1.14	185.37
	1.45	186.82		

End of Hay field

Nail in Hub near fence - R. Sta. 263+⁵⁰₅₅
field fence

Gully at Sta. 265+00

Nail in ground 15' R. Sta. 270+00

Nail in ground with ricks around it 2' L Sta. 275+00

186.82

276

3.5 183.32

277

4.0 182.82

278

4.3 182.52

279

3.65 183.17

280

3.3 183.52

P

3.22 183.60

4.34 187.94

281.

4.3 183.64

282

4.4 183.54

BC (A)

3.55 184.39

B.M.

4.64 181.30

Sta. 278 = Sta. 280 (as marked)
 (Sta. 279 left out in marking)

End of line (as located by Wetland)

E.C. of Preliminary.

Notch at base North side of Rock, 150' L.

Sta. 282 + 00

↙ Pile of small rocks marks B.M.

	2.16	197.51	195.35	
C.M.			249	195.02
	0.6 ³ 4	195.66 ⁵		bedest 109.5
198			72	188.45
199			6.85	188.80
200			8.3	187.35
+23.50			8.25	187.40
C.C. (12°)			84	187.25
C.C. (6°30')			84	187.25
201+13			84.5	187.20
+50			85	187.15
202			8.6	187.05
202-50			7.95	187.70
203			6.5	189.15
+50			5.0	190.65
+85			3.6	192.05
204			3.65	192.00
+50			2.9	192.75
205			3.75	191.90
+50			5.0	190.65
+60			5.2	195.15
+75			6.2	189.45
206			6.3	189.35
+03			6.2	189.45
+15			6.0	189.65
TP			4.40	191.25
	138	192.63		

JUNE 23, 1912.

29

Matthew - level

Cope - Rod.

Weather - Windy

Continued from p. 17

Took off B.M. left Sta 203+25 (1st location)

Noted notch Base of 1st Gum tree from County Rd.

fence, R. Sta 204+50

6/23-24-12.

Note: Sta. 198+00 = 199+00 actually
(on account mistake in sta. no. heretofore noted)

fence Crossing

East fence County Rd.

C

"

"

→ West

"

"

"

/ Beg. Grass field

206+93	(192.66)	4.1	188.53
207		4.25	188.58
208		4.4	188.23
209		5.1	187.53
210		6.4	186.23
211		6.5	186.13
TP		6.53	186.10
	3.01	189.11	
212		3.3	185.81
213		3.65	185.46
214		4.2	184.91
215		5.9	183.21
216		6.05	183.06
217 TP		4.04	185.07
X	4.30	189.37	
218		4.1	185.27
219		4.8	184.57
220		4.0	185.37
221		4.05	185.32
222		3.7	185.67
B.M.		5.00	184.37
223 TP		5.34	184.03
	3.92	187.95	
223+85		4.5	183.45
224		4.8	183.15
225		5.15	182.84

Sta. 209+00 Repeated

Sta. 218 = Sta. 209 as marked.

Ginney at Sta. 211+00

Ginney at Sta. 219+00

End Grain field - Beg. Orchard.

Check in P.M. (Elev. 154.36), Nail in Hub near fence

at Sta. 222+00

Ginney at Sta. 223+00

Done

187.95

226	4.9	183.05
+ 0.2	5.8	182.15
+ 1.5	4.7	183.25
+ 5.0	5.3	182.65
+ 5.5	6.3	181.65
+ 7.5	4.7	183.25
227	4.85	183.10
228 + 9.0	4.5	183.45
228	4.2	183.75
229 P.	4.33	183.62

3.02 186.64

230	3.9	182.74
231	4.55	182.09
232	4.2	182.44
+ 3.0	4.3	182.44
+ 3.5	4.25	182.39
+ 3.6	4.7	181.94
+ 3.8	4.5	182.14
233	4.7	181.74
234	5.5	181.14
235 P.	5.17	181.47

3.65 185.12

236	3.8	181.32
237	4.0	181.12
238	4.0	181.12

force

Gray

force

number 237

185.12

239	4.15	180.97
240	4.4	180.72
241	4.4	180.72
<u>T.</u>	4.44	180.68

326 183.94

242	3.7	180.24
243	3.75	180.19
244	3.7	180.34
<u>B. M.</u>	2.96	180.98

245	3.9	180.04
+90	4.1	179.84

246	4.35	179.59
+50	4.9	179.04

+60	5.8	178.14
+70	5.0	178.94

247	4.0	179.74
<u>T.</u>	3.99	179.95

4.15 184.10

248	4.85	179.25
+30	4.7	179.40

+45	6.7	177.40
+55	4.3	179.80

249	4.4	179.70
250	4.65	179.35

+12	4.4	179.70
+20	2.8	176.30

Sta. 239+00 marked Correctly

Fig 15 R Sta 241+00

Chico 3M (Elev. 180.88), Nail in notch on fence post
N Sta 245+00,
fence

Butt. Creek

184.10

250+30

4.7 179.40

+26 251

4.1 180.00

R

180 182.30

6.95 189.25

252

6.9 182.35

253

4.9 184.35

254

4.0 185.25

255

5.0 184.25

256

6.0 183.20

257

8.1 181.15

R

7.93 181.82

3.51 184.83

+50

4.4 180.43

+55

5.9 178.93

+58

4.9 179.93

258

8.75 181.08

259

4.5 180.33

260

4.5 180.53

261

4.6 180.23

262

5.0 179.83

263

5.5 179.33

R

4.78 180.25

2.12 182.17

+50

2.8 179.37

264

3.75 178.42

251+00
 Railroad fence post ^{10'} R. Sta. 251+00
 (Elev. 112.21)

Reg. 1' R. Sta. 257+00

4/20-121

182.17

265

4.0 178.17

B.M.

3.84 178.33

266

4.45 177.72

267

4.9 177.27

268

4.6 177.57

TP

4.57 177.60

5.92 183.54

269

4.5 179.02

270

4.4 179.14

271

4.5 179.04

272

3.7 179.84

273

3.15 180.39

274

1.05 182.49

TP

0.96 182.58

5.59 188.17

275

4.25 188.92

276

2.8 185.37

+40

2.5 185.67

277

4.6 183.57

278

6.1 182.07

279

5.5 182.67

280

5.35 182.82

TP

5.24 182.93

5.13 188.06

6/25-10

Chicken BM. (Elev 178.22), Nailin Hub near
fence, R. Sta. 2644.50

Gunny at 2687.00

188.06

281

4.55 183.51

282

4.1 183.96

283

4.5 183.56

284

4.1 183.96

+17 B.L.

3.6 184.46

B.M.

6.68 181.38

183.63 TP.

7.54 191.17

283+50

184.60

284+00

185.30

+50

186.10

285+00

186.80

+50

187.50

286+00

187.80

+50

188.10

287+00

189.20

+50

189.80

TP

346

193.28

288+00

3.0 190.28

+17

3.05 190.23

+50

3.3 189.98

289+00

3.3 189.98

+50

4.65 188.63

290+00

5.6 187.68

Check B.M. Elev. 101.30 Notch at Base N. Side
of Rock, 200' L Sta 284+00
↓ Pile of Small Rocks marks B.M.

19328

290+50

6.5 186.78

291+00

6.65 186.63

+50

6.95 186.38

292+00

7.2 186.08

+50

7.8 185.48

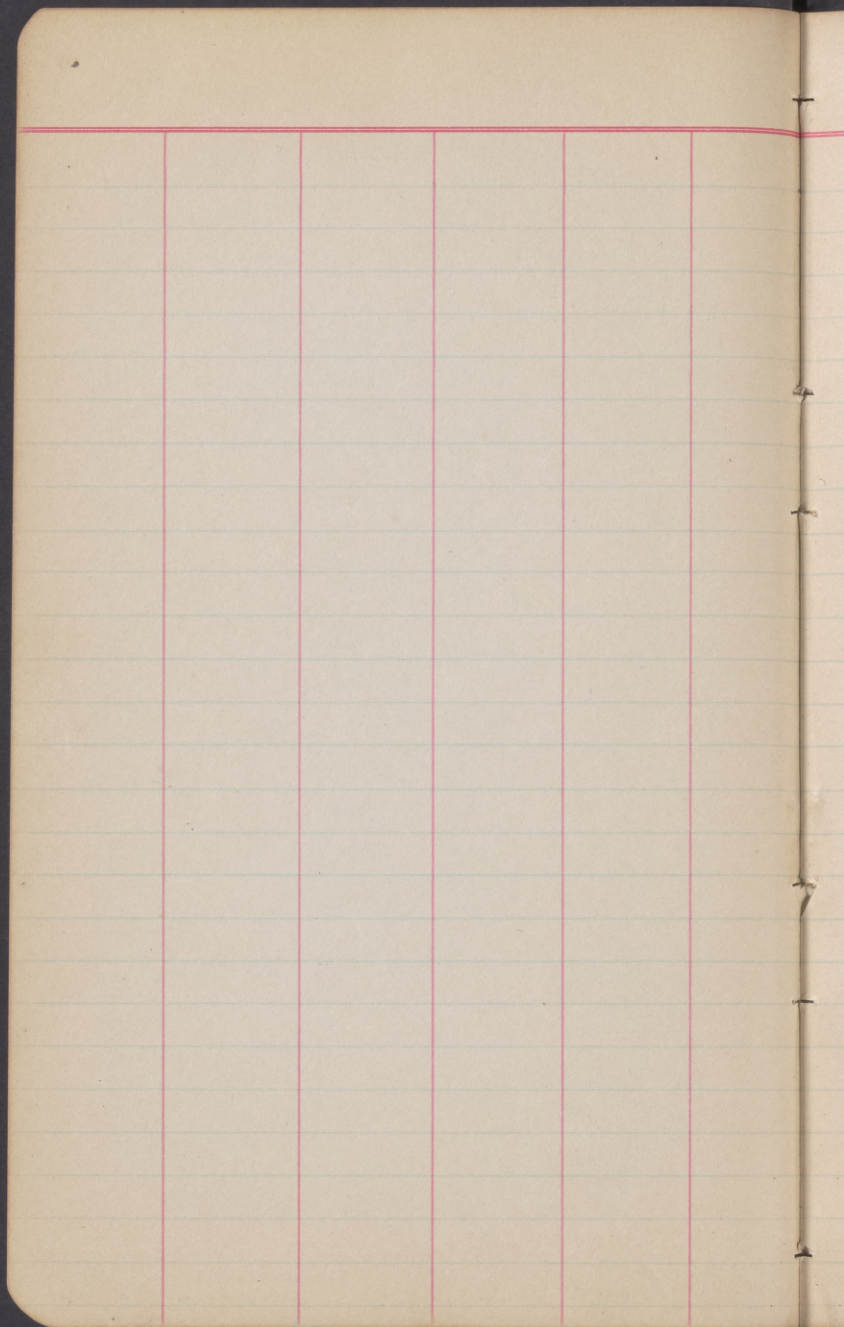
293+00

8.2 185.08

+17

8.3 184.98

End of $\frac{1}{2}$ line.



A blank ledger page with a table structure. The page is cream-colored and features a series of horizontal light blue lines. A vertical red line runs down the left side, creating a narrow margin. Another vertical red line runs down the right side, creating a narrow margin. The central area is divided into four vertical columns by three vertical red lines. The columns are of varying widths, with the central column being the widest. The page is otherwise empty of any text or markings.

LEVELS

ON RELOCATION Sta. 28+00 - Sta. 78+00

	7.87	194.50 ⁵	13.1	195.78
T.P.			10.7	195.43
	7.79	207.22		
T.P.			0.81	208.41
	7.47	208.88		
28+00			13.1	195.78
29			11.25	197.63
+15			10.7	198.18
30			11.4	197.45
+46 ²⁴			10.2	198.68
31			8.7	200.18
32			6.9	201.98
33			4.7	204.18
+15			4.2	204.68
34			1.8	207.08
T.P.			4.86	208.02
	7.51	215.53		
35			4.8	210.93
36			4.2	211.33
+15			4.4	211.13
37			3.7	209.83
38 T.P.			5.39	210.14
	7.79	219.93		
B.M.			5.19	212.74
39			6.0	211.93
40			4.6	213.33

JUNE 22, 1912.

Matthew - Level

Cape - Rod

Weather - Quiet

Continued from p.p. 3

B. M. L. Sta. 31+00

Waller's Hub, Polk County Rd. - R Sta. 32+00.

S. Force County Rd.

County Rd. at Sta. 31+00

2nd
110
9th

33+15 - fence West side Cross road

field fence

On Quarry at Sta. 38+00

(Check on B. M. - Elev. 212.73) L. Sta. 38+50

217.93

40+130

4.1 213.83

+40

4.6 213.33

+15

8.8 209.13

+65

9.3 208.73

+85

8.6 209.33

41

9.3 214.63

T.P.

0.55 217.38

11.80 229.18

42

14.5 218.68

43

725 221.93

44

5.05 224.13

+50

3.45 225.73

+53

4.7 224.48

+56

5.2 225.98

45+19.14

2.0 227.18

45

2.0 227.18

46

1.25 227.93

T.P.

1.13 228.05

6.51 234.56

47

6.3 228.26

48

5.5 229.06

49+32

5.35 229.21

49

4.25 230.31

50

4.15 230.41

51

3.0 231.56

T.P.

3.00 231.56

Field-fence

East Edge Creek

Q Creek

West Edge Creek

Bull. Ditch

Gunny at Sta. 51700

T.P.	10.47	242.03	231.56
52			9.3 232.73
53			7.35 234.68
54			4.6 237.43
+50			4.7 237.38
+55			7.3 234.73
55			5.9 236.13
106 ²⁰			5.85 236.18
56			5.25 236.78
+50			4.9 237.13
+65			6.8 235.23
+80			4.8 237.23
57			4.0 238.03
T.P.			4.02 238.01

	10.76	248.77	
+80			8.4 240.37
+95			4.2 239.57
58			9.05 238.72
+15			8.0 240.77
+25			7.9 240.87
+50			7.5 241.27
59			7.15 241.62
+25			7.0 241.77
+35			9.0 239.77
+45			6.7 242.87
60			5.0 243.77

Bolt Ditch

Ginny at Sta. 57400

Sta. B.S. H.I. F.S. Elev.

248.77

B.M. 327 245.50

6488 6.5 242.72

61 6.3 242.47

62 5.9 242.87

63 T.P. 327 245.50

1227 257.77

63488 9.5 248.12

64 9.2 248.57

+50 8.0 249.77

+55 5.8 251.97

65 6.0 251.77

+12 9.1 248.67

+50 2.3 249.47

+90 6.8 250.97

66 7.65 250.12

+15 7.3 250.47

+20 4.5 253.27

+30 4.2 253.57

+40 6.5 251.27

+50 6.3 251.47

+60 0.75 257.02

T.P. 0.47 257.30

1159 268.89

66+55 11.4 257.49

67 14.5 254.39

Hide B.M. (Elev. 215.46), Nail in Hub near fence
N. Sta. 60+75

Side old cut

Q old cut.

Grassy at Sta. 63+00

67

268.89

+05

16.8 252.09

+18

16.3 253.58

+30

11.8 257.09

+50

11.6 257.29

+55

12.2 256.69

68

10.3 258.59

+75

8.8 240.09

+80

6.2 262.69

69

6.0 262.89

+50

4.5 264.3.9

+60

6.5 262.39

70

5.25 263.64

71

2.85 266.04

+20

2.6 266.29

+25

3.0 265.09

72

1.65 2672.4

T.P.

1.66 2672.3

859 275.82

73

6.35 269.47

B.H.

6.67 269.15

74

6.3 269.53

75

7.85 267.97

+29.5

8.0 267.82

76

10.1 265.92

T.P.

10.10 265.73

318 268.80

$$\begin{array}{r}
 10 = 59.81 \\
 9 = 58.45 \\
 \hline
 4 \overline{) 1.36} \\
 \underline{.34} \\
 1.02 \\
 58.45 \\
 \hline
 59.47
 \end{array}$$

$$11 = 61.33$$

$$12 = 63.00$$

$$4 \overline{) 1.67}$$

$$\begin{array}{r}
 .420 \\
 61.330 \\
 \hline
 61.75
 \end{array}$$

Fence Crossing

Sea old Cot

$$13 = 64.75$$

$$12 = 63$$

$$\begin{array}{r}
 1.75 \\
 .44 \\
 \hline
 1.31
 \end{array}$$

$$63$$

$$64.31$$

Gunny at Sta

Chick B.M (E)

Gunny at 26+00

$$7+21$$

$$6+75$$

$$46$$

$$14$$

$$60$$

$$225$$

$$46$$

$$1350$$

$$900$$

$$1035.0$$

$$60$$

$$435$$

$$420$$

$$16$$

$$64.75$$

$$1.75$$

$$66.50 = 14$$

$$42$$

$$66.94$$

$$66.40$$

$$1.75$$

$$68.25 = 15$$

$$1775.00$$

$$70.00 = 16$$

$$200$$

$$69.56$$

$$71.75 = 17$$

$$46$$

$$72.19$$

$$60$$

$$22 \frac{1}{2}$$

$$22 \frac{1}{2}$$

$$1$$

$$60$$

$$46 \times 22.5$$

$$60$$

$$22 \frac{1}{2}$$

$$174$$

$$6 \frac{1}{4}$$

$$5725$$

$$5 =$$

$$5458$$

$$6 =$$

$$55.31$$

$$0.73$$

$$0.18$$

$$54.58$$

$$54.76$$

$$7 =$$

$$56.20$$

$$55.31$$

$$0.89$$

$$.22$$

$$56.67$$

$$55.31$$

$$55.98$$

$$8$$

$$57.25$$

$$56.20$$

$$1.05$$

$$9$$

$$58.48$$

$$57.25$$

$$4 \overline{) 1.20}$$

$$57.30$$

$$57.25$$

$$57.55$$

268.90

86+50

5.5 263.40

175

7.7 261.30

7.7

6.9 262.00

78

10.1 255.80

TP

241.26649

5.38 271.87

B.M.

284 269.03

6/22-'12

✓

Check on BM (Elev. 268'99), Nail in Hub near
County Rd. Fence, L. Sta. 76+00

Continued on page 8

Location of Poles

Face of Poles 8' at Rt. Angles from Center of Track. Set Center Stakes for Pole Hole Diggers 8.5' from Center on Right or North Side of Track throughout.

Dimensions - Length 35' - 7" tip
Set 6 ft. below Sub-Grade
Anchored in fills over 3' deep with 2 pos - 3x10 - 36 R.W.
Securely spiked to pole as per diagram.

Set Centre Stakes at Base of Rail
Grade - 1 ft. above Sub-Grade
Grade on Pole = 7 ft. up from Butt
6'-0" Set below Sub Grade
1'-0" Ballast and Tie
- 4 1/4 Rail
22'-3" Tip Rail to Trolley Wire
- 22" Trolley Wire to Messenger
31'-5 1/4 Bottom of Pole to Messenger Cable
Less 7 1/4 Messenger Cable to Center Bracket
30'-10" Bottom Pole to Ctr. Bracket
- 2'-6" Ctr Bracket to Ctr. Brace
33'-4" Bottom to Brace Rod
- 1'-3" Ctr. Brace Rod to Pt. of Bevel
34'-7" Bevel
- 5" Bevel
35'-0"

June 12/13 ~~with~~

30'-10"	Bottom Pole to ctr. Bracket
2'-10"	Below Bracket to top X Arm
28'-0"	Bottom Pole to top X Arm
7'-0"	Top " " " "
21'-0"	Approx Top Rail to Feeder Wire
23'-10"	From stake to ctr. Bracket

Sta.	B.S.	I.S.	F.S.	Elev.
Bm #3	4.87	60.11		(55.24)
#2 3			4.35	55.76 ✓
" 4			3.13	56.98 ✓
" 5			1.56	58.55 ✓
TP. 9+00 Top Slope			0.83	59.28
	8.74	68.02 ✓		
# 6			7.55	60.47 ✓
" 7			5.27	62.75 ✓
" 8			2.71	65.31 ✓
" 9			0.08	67.94 ✓
TP. top of #9			0.08	67.94
	8.10	76.04 ✓		
" 10			5.48	70.56 ✓
" 11			2.85	73.19 ✓
x	x	x	x	x
Bm. # A				77.77
	0.21	77.98 ✓		
# 11			4.72	73.26 ✓
# 10			7.34	70.64 ✓
# 9			9.96	68.02 ✓
# 8			12.53	65.45 ✓
TP.	0.05	65.50		
# 7			2.62	62.98 ✓
# 6			4.92	60.58 ✓
# 5			6.51	58.66 ✓

June 17/13

		Grade			
N ^o 0	0 + 75				
" 1	2 + 25	54.13	✓	11.35	10.29
" 2	3 + 75 91.2	54.88	✓	F.S.	
" 3	5 + 25 ✓ 65.50	55.76	✓	9.74	
" 4	6 + 75 ✓	56.98	✓	8.62	
" 5	8 + 25 ✓	58.55	✓	6.95	
" 6	9 + 75 ✓	60.47	✓	5.03	
" 7	11 + 25 ✓	62.75	✓	2.75	
" 8	12 + 75 12.70	65.31	✓	0.19	
" 9	14 + 25 ✓ 78.01	67.94	✓	10.07	77.77
" 10	15 + 75 ✓	70.56	✓	7.45	
" 11	17 + 25 ✓	73.19	✓	4.82	
" 12	18 + 75				
" 13	20 + 25				
" 14	21 + 75				
" 15					

# 4	65.50	8.34	57.16	x
# 3		9.55	55.95	x
By # 3		10.10	55.40	(55.24) 16

6/19-1913

Bm#4	0.35	78.12		77.77	
			2.31	75.81	11.36
			.68		8.73
Bm#4	9.40	87.17		77.77	6.11
					3.45
Top #16	12.47	98.79	0.95	86.32	0.88
			9.85		
			7.23		
			4.60		
Ch. B.M. Post 29 + 40 R.			4.89	93.90	93.92
	13.67	107.59	2.00	93.92	Bm#5
			8.31		
				77.77	Bm#4
	8.86	86.63			
	10.80	97.12	0.31	86.32	
Bm#5			3.20	93.92	✓
T.P.	9.24	106.07	0.29	96.83	
Post 21			6.79	99.28	
22			4.45	101.62	
Bm#6			3.20	102.87	108.86
23			2.19	103.88	
T.P.	7.61	112.93	0.75	105.32	
24			6.80	106.13	
25	(see 6/18/13)		4.55	108.38	
26			2.30	110.62	
27			0.05	112.84	

134 = 101.00 6.59

98.8

41

616

43

po/a N ^o			Grade 1' above Sink Grade	
11	17+25	✓	73.19 set.	175
12	18+75	✓	75.81	87
13	20+25		78.44	262
14	21+75		81.06	2.62
15	23+25		83.69	2.63
16	24+75		86.31	2.62
17	26+25		88.94	2.63
18	27+75		91.56	2.62
19	29+25		94.19	2.63
20	30+75		96.79	(P133 in June 60)
21	32+25		99.28	
22	33+75		101.62	
23	35+25		103.88	
24	36+75		106.13	
25	38+25	anchors	108.38	
26	39+75		110.63	
27	41+25		112.88	
28	42+75	anchors	115.13	
29	44+25	anchors	117.38	
30	45+75		119.63	
31	47+25		121.88	
32	48+75		124.13	
33	50+25		126.38	
34	51+75	more 6 miles	128.63	nearest side
35	53+25		130.88	
36	54+75		133.13	

Bm #4	0.35	78.12		77.77	
17+25			4.93	73.19	# 11
T.P.		112.93	0.06	112.87	
Bm #7	8.83	121.70	7.27	114.43	114.39
	7.27	121.66		114.39	
#28			6.53	115.13	
#29			4.28	117.38	
30			2.03	119.63	
T.P.	9.54	129.36	1.84	119.82	
31			7.48	121.88	
32			5.23	124.13	
33			2.98	126.38	
34			0.73	128.63	
T.P.	8.17	136.80			
35			5.92	130.88	
36			3.67	133.13	
37	9.25	144.63	1.42	135.38	
38			7.00	137.63	
Bm.			9.15	135.48	X
39			4.75	139.88	
40			2.50	142.13	
41 J.P.	10.19	154.57	2.5	144.38	✓
	7.80	156.48	5.89	148.68	✓
42			2.60	153.88	✓
43			9.83	146.65	1.36
			7.87	148.61	227

nail top stump abt 55' L 17+85

13⁶
73.
2.25

on Hub at C. Road fence 15' L 57+70 = 135.71 73

Top (cut) Pole stake +1

B.M. Regal Post 30' L 66+80 154.21 33
9.15 Ground

137
25
112

108.58
7.57 106.95
25
7.32 104.2
8.96

98		116.12	✓ 9.17	106.95	8.92	✓
97			7.57	108.58	7.32	✓
96+95	64		6.15	109.97		✓
96	c 0.35		5.87	110.25	5.62	✓
95+25	63 c 0.10		5.56	112.56		✓
95	c 0.07		4.12	112.00	3.97	✓
94	c 0.20		✓ 3.7	113.75	2.12	✓
93+75	62 c 0.20		9.3	115.19		✓
93	c 0.40		6.2	115.50	3.7	✓
			0.95	115.17	2.62	✓

11612
10670
7.62

43

		Grade	
✓ 37	56+25	135.38	✓
✓ 38	57+75	137.63	✓
✓ 39	59+25	139.88	✓
✓ 40	60+75	142.13	✓
✓ 41	62+25	144.38	✓
✓ 42	63+75 Anchor	146.63	✓
✓ 43	65+25	148.61	✓
✓ 44	66+75	149.96	
✓ 45	68+25 X	150.64	
✓ 46	69+75	150.64	
✓ 47	71+25	149.96	
✓ 48	72+75	148.61	
✓ 49	74+25	146.63	
✓ 50	75+75	144.38	
✓ 51	77+25	142.13	
✓ 52	78+75	139.88	
✓ 53	80+25	137.63	
✓ 54	81+75	135.38	
✓ 55	83+25	133.13	
✓ 56	84+75	130.78	
✓ 57	86+25	128.31	
✓ 58	87+75 Anchor	125.69	
✓ 59	89+25	123.06	
✓ 60	90+75 Anchor	120.44	
✓ 61	92+25	117.81	
✓ 62	93+75	115.19	
✓ 63	95+25	112.56	✓

	5.65	108.78	121	103.13	
	8.58	116.12	1.21	107.57	Top.
			3.38	105.40	
			5.83	103.45	
			7.05	101.73	
B.M.R. 961	2.10	105.23		102.173	
# 68				103.13	
69.58	0.15	100.37	3.50	101.73	102+75
			5.01	100.22	104+25
			7.47	98.95	105+75
# 74			2.47	97.90	107+25
73			3.30	97.07	
			3.90	96.47	
74			4.31	96.06	
# 75			4.62	95.45	
2.422	Grade Sta 114	98.64	5.95	94.42	14.6
			3.19	95.45	
			3.49	95.15	
			3.79	94.85	
18.	3.35	97.90	4.09	94.55	Top of
			3.65	94.25	
			3.95	93.95	
			4.25	93.65	
J.P.	3.35	96.70	4.55	93.35	Top of
			3.65	93.05	
			3.95	92.75	
			4.25	92.45	
			4.55	92.15	
J.P.	3.32	95.17	4.85	91.85	Top of
			3.62	91.55	
			3.92	91.25	
			4.20	90.95	

64	96+75 ✓	brode	✓
65	98+25 ✓	109.97	
66	99+75 ✓	107.57 ✓	
67	101+25 ✓	105.40 ✓	
68	102+75 ✓	103.45 ✓	
69	104+25 ✓	101.73 ✓	
70	105+75 ✓	100.22 ✓	
71	107+25 ✓	98.95 ✓	
72	108+75 ✓	97.90 ✓	
73	110+25 ✓ ✓	97.07 ✓	
74	111+75 ✓	96.47 ✓	
75	113+25 ✓	96.06 ✓	
76	114+75 ✓	95.75 ✓	
77	116+25 ✓	95.45 ✓	
78	117+75 ✓	95.15 ✓	
79	119+25 ✓	94.85 ✓	
80	120+75 ✓	94.55 ✓	
81	122+25 ✓	94.25 ✓	
82	123+75 ✓	93.95 ✓	
83	125+25 ✓	93.65 ✓	
84	126+75 ✓	93.35 ✓	
85	128+25 ✓	93.05 ✓	
86	129+75 ✓	92.75 ✓	
87	131+25 ✓	92.45 ✓	
88	132+75 ✓	92.15 ✓	
89	134+25 ✓	91.85 ✓	
90	135+75 ✓	91.55 ✓	
		91.25 ✓	

91.02 Bm on Post Box R138

90.97
0.5

930.2

3.82

4.24 88.78

4.87 88.15

5.62 87.40

2.8.

6.14

90.53

8.75 84.27

84.39

3.44

4.63 85.90

5.33 85.20

2.8

4.00

88.73

5.80 84.73

2.8

4.25 84.45

4.33 84.40

		grade
91	137+25	90.95
92	138+75	90.65
93	140+25	90.35
94	141+75	90.05
95	143+25	89.76
96	144+75	89.52
✓97	146+25	89.40
98	147+75	89.40
99	149+ 25 +30	89.40
100	150+ 25 +65	89.40
101	152+ 25 +40	89.40
102	153+ 25 +95	89.40
103	155+ 25 +50	89.40
104	157+00	89.40
105	158+50	89.40
106	160+00	89.40
107	161+50	89.38
108	163+00	89.20
109	164+50	88.78
110	166+00	88.15
111	167+50	87.40
112	169+00	86.65
113	170+50	85.90
114	172+00	85.20
115	173+50	84.73
116	175+00	84.45
117	176+50	84.40

		Grade
118	178+00	84.40
119	179+50	84.40
120	181+00	84.40
121	182+50	84.40
122	184+00	84.40
123	185+50	84.38
124	187+00	84.25
125	188+50	84.00
126	190+00	83.65
127	191+50	83.28
128	193+00	82.90
129	194+50	82.53
130	195+00	82.15
131	197+50	81.78
✓ 132	199+00	81.40
133	200+50	81.03
134	202+00	80.65
135	203+50	80.28
136	205+00	79.90
137	206+50	79.53
138	208+00	79.15
✓ 139	209+50	78.78
140	211+00	78.40
141	212+50	78.03
142	214+00	77.65
143	215+50	77.30
144	217+00	77.00

25
125
375

8340 46
533

	88.73	4.33	84.40	
		4.33		
4.03	88.43	4.33	84.40	JP
		4.03		
		4.03		
		4.05		
		4.18	84.25	
2.93	86.93	4.43	84.00	JP
		3.28	83.65	
		3.65	83.28	
		4.03	82.90	
		4.40	82.53	
3.93	86.08	4.78	82.15	JP
5.82	86.07	5.82	80.26	80.25
		4.29	81.78	
		4.67	81.40	
2.63	83.66	5.04	81.03	JP Top
		3.01	80.65	
		3.885		
		3.760		
		4.135		
		4.510		
3.37	82.15	4.885	78.78	JP #139
		3.75	78.40	
		4.12	78.03	
		4.50	77.65	
		4.92	77.30	
3.65	82.22	4.85	77.00	
5.24	82.24	5.65	76.50	76.57
2.81	80.79	5.22	76.00	
		5.24	76.98	JP #149

		7979.			
* 145			3.09	76.70	
146			3.39	76.40	
147			3.69	76.10	
148			3.99	75.80	
149			4.29	75.50	
* 150			4.59	75.20	
151			4.89	74.90	
152	Bm. 5.62	77.69	7.77	72.02	72.07
			3.09	74.60	
153			3.39	74.30	
154			3.69	74.00	
155			3.99	73.70	
156			4.24	73.45	
157	3.62	76.95	4.36	73.33	Top #157
158			3.65	73.30	x
159			3.65		
160			4.30	72.65	72.62 Bm
161					
162	4.27	76.97	3.67	72.70 Bm	72.46
163				73.30	
164			3.67		4.42
165					
166	4.88	77.17	4.68	72.29	LB 251
167			3.87	73.30	487-4.62
168					
169			4.92	72.25	4.67
170			3.97	72.15	4.77
			5.02	71.80	4.92
			5.17	71.80	5.12

145	218+50	76.70	
146	220+00	76.40	
147	221+50	76.10	
148	223+00	75.80	
149	224+50	75.50	
150	226+00	75.20	
151	227+50	74.90	
152	229+00	74.60	
153	230+50	74.30	
154	232+00	74.00	
155	233+50	73.70	
156	235+00	73.45	
157	236+50	73.33	
158	238+00	73.30	
159	239+50	73.30	
160	241+00	73.30	
161	242+50	73.30	
162	244+00	73.30	
163	245+50	73.30	
164	247+00	73.30	
165	248+50	73.30	
166	250+00	73.30	
167	251+50	73.30	
168	253+00	73.30	
169	254+50	73.20	
170	256+00	73.00	
171	257+50	72.70	

4.17

4.47

continued
5 pages ahead

DIFFERENTIAL LEVELS FROM P. & S. P. V. LOCATION TO HILL

T(1)	7.96	189.26		181.30
TP 1			0.62	188.64
T(2)	11.94	200.58		
TP 2			0.57	200.01
T(3)	11.84	211.85		
TP 3			0.68	211.17
T(4)	12.69	223.86		
TP 4			0.94	222.92
T(5)	12.99	235.91		
TP 5			0.92	234.99
T(6)	13.00	247.99		
TP 6			1.45	247.54
T(7)	12.83	260.37		
TP 7			2.19	260.19
T(8)	11.28	271.47		
TP 8			0.02	271.45
T(9)	6.80	278.25		
B.M.			1.29	276.96

Elevation of B.M. on Hill = 276.96

" " "B.C." of Curve = 184.39

Diff. of Elevation 92.57 feet

JUNE 21, 1912. 48
Matthew - Level
Cope - Rod
Weather - Very Windy

ABOVE TWO ROCKS.

B.M. left Sta. 282+00.

Wooden peg-guard stake.

" " "

" " " "

Wooden Peg - Guard stake.

Nail in notch at base of Gum-tree in grove, #
200' N. of Two Rocks on hill.

→ Balanced - 6/21-'12.

DIFFERENTIAL LEVELS
from
P.S.P. LOCATION TO CREEK BELOW.

T(1)	5.86	187.16	181.30
PR			7.16 180.00
T(2)	0.49	180.49	10.6 169.89
B.M.			7.08 173.41

Elevation of Creek Bed = 169.89 feet.

JUNE 21, 1912.

49.

Matthew - Level

Cape - Rod

Weather - Very Windy

B.M. left Sta 252+00

Sta. in Butt. Creek, 100' N. Bridge on County Rd.

Nail in Cap on N. side County Rd. Bridge.

← Balanced - 6/21-30

PROFILE OF PIPE LINE
To
Two Rock.

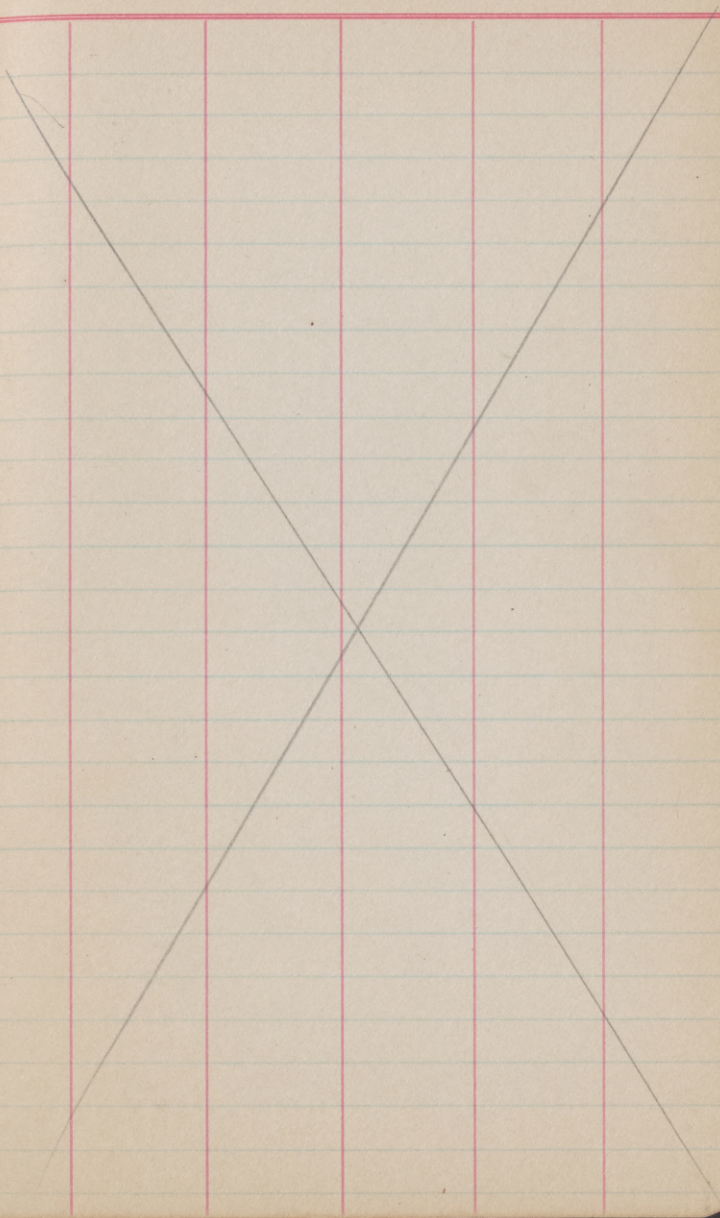
Sta.	+S	H.I.	-S	Elev.
B.M.	9.42	190.72		181.30 B
0+00			6.58	184.14
1+00			3.47	187.25
T.P.			0.59	190.13
	12.67	202.80		
2+00			11.70	191.08
3+00			6.20	196.60
T.P.			1.58	201.22
	12.05	213.27		
4+00			8.37	204.90
T.P.			1.56	211.71
	12.44	224.15		
5+00			8.55	215.60
T.P.			0.36	223.79
	12.43	236.22		
6+00			7.29	228.93
T.P.			1.57	234.65
	11.58	246.23		
7+00			4.10	242.13
T.P.			0.80	245.43
	12.88	258.31		
8+00			5.37	252.94
T.P.			0.30	258.01
	11.88	269.89		

July 5, 1912.

Tobolander - Level

Casey - Rod.

50



Sta.	+S	H.I.	-S	Elev.
		269.89		
9+00			7.51	262.38
T.P.			1.92	268.47
	1.73	280.20		
10+00			4.78	275.42
10+37.20			2.32	277.83
			2.82	277.38
			3.04	277.16
T.P.			3.12	277.08
	1.93	279.01		
			-0.3	279.31
B.M.			2.12	276.89

July 5, 1912.
The order - Level
Casey - Rod.

51

S.E. Cor. Reservoir site.

N.E. " " "

S.W. " " "

N.W. " " "

Check BM (Elev. 276.96) Nail in foot of
Gum-tree in Grove above Two Rock.

258		77.17	5.56 5.77	71.00	532	✓
260	7.69	76.42	8.45 5.24	68.72 71.20	552 BM 68.76 494	✓
261			5.39	71.05	514	✓
262			5.44	71.00	519	✓
263			5.39	71.05	514	✓
264			5.24	71.20	499	✓
269	5.53	78.52	3.45	72.99		✓
270			5.52 5.12	73.00 73.40	527 4.87	✓
271			4.72	73.90	4.47	✓
272			4.32	74.20	4.07	✓
293			3.92	74.60	3.67	✓
274			3.52	74.00	3.27	✓
275	53.5	81.95	3.12 1.92 10.25	76.60 71.70	2.87	✓
	10.25	81.99	5.04	71.74 76.95	BM Rock 4.79	✓
282	4.88	81.89	4.99 4.98 4.89	77.00 77.01	4.74	✓
284 Low 0.5 cm		0.22 L 0.15 R			1.54	✓
285 " 0.5 "		0.15 R 0.04 R				✓
B.M.			8.18	73.71		✓

Pod

✓172	259+00	4.77	72.40
✓173	260+50	4.32	72.12
✓174	262+00	4.44	72.00
✓175	263+50	4.32	72.12
✓176	265+00	3.79	72.45
✓177	266+50	3.44	73.00
✓178	268+00	4.92	73.60
✓179	269+50	4.32	74.20
✓180	271+00	3.72	74.80
✓181	272+50	3.12	75.40
✓182	274+00	2.52	76.00
✓183	275+50	1.92	76.60
✓184	277+00	4.75	77.20
✓185	278+50	4.27	77.68
✓186	280+00	4.04	77.95
✓187	281+50	3.99	78.00
✓188	283+00	3.89	78.00
✓189	284+50	"	78.00
✓190	286+00	"	78.00
✓191	286+75	✓ Inland	

By at 2nd post R Sta 286+75

7-7-1913

Pole	Sta	B. S.	H. I.	F. S.	Elev
B.M. #3		3.50	58.90		55.40

1 2+25 4.77 54.13

2 3+75 4.02 54.88

End of line 3 log anchors w pole
 2 3/4" Iron Pins
 1 1/2" " "

1/4 - 3 Bolt Galv Clamps

2 7/16" Sleet Gang wires

2 5/16 " " "

4 Wood Shown Insulators

2 Large Pins " "

2 Insulator Straps

1 4x4 Cross Arm on 191 ^{in Insulator}

2 35ft cedar poles Insulator of 191

#190 Cross Arm 4x4 No Insulator

Trailer on ground 50ft west of #190

Main Sleet Band w pole 2' E of 191 2 small Insulators

Wires - 60ft length #190 - 2 3 Bolt clamps

12m Insul. 2 Large Pins 2 small Pins

Trailer - 50' length #190 - 2m Insul.

2 Large Pins 2 small Pins

Phosphor double #190 50ft length

2 small Pins 2m Insul of 190

1 - 50' trailer 50ft west of #190

B.M. opp Sta[#] 3 = 55.40

Lucy 148 - 30 "

7-17-13

Cross Section of Mission Street

Sta.	B. S.	H. I.	F. S.	Elev.
B. M.	10.58	84.29		73.71
T. P.	2.32	79.87	6.74	77.55

Co. Road. = +40.5 From Fence. on Co. Road.

" = +20 "

At Fence

Cor L 1-2

" " 2-3

N. W. Cor

N. E. Cor

Cor 1-2

" 2-3

" 3-4

T. P.	2.89	80.69	2.07	72.80
-------	------	-------	------	-------

Cor 4-5

" 5-6

" 6-7

" 7-8

" 8-9

" 9-10

N. W. Cor of H. M. Shan

B. M. = base of Rack

9.52 71.74

Block 1

Block 2

Stice

Street

2755
230
795

8069
7174
895

L

C

R

1059					9.28	
75.0			997		18.0	
924					7.43	
12.0			9.08		17.0	
8.75	8.80			6.39	6.55	5.74
27.0	12.0	6.55		12.0	15.0	78.0
27.9	7.15			4.65	4.80	37.4
23.0	17.0	4.76		14.0	17.0	19.0
7.10	2.83			4.76	5.10	4.11
25.0	2.40	4.41		12.0	16.0	17.0
7.10	7.59	7.40		5.31	4.67	
16.0	15.0	14.0	5.66	2.70	2.60	
21.8	7.61	7.18		4.55	4.85	4.57
22.0	20.0	12.0	4.83	2.00	7.70	20.0
6.55	7.10	6.40		4.41	4.65	3.38
22.0	21.0	17.0	4.43	16.0	20.0	27.0
6.50	7.18	6.48		3.40	4.0	3.39
22.0	21.0	16.0	4.18	18.0	20.5	22.0
6.16	6.87	5.75		3.42	2.75	2.13
22.0	21.0	16.0	3.73	17.0	20.5	22.0
7.40	9.24	7.72		5.15	4.22	3.47
27.0	20.0	17.0	5.69	4.0	18.0	21.0
8.50	9.18	8.65		1.48	8.50	6.98
22.0	20.0	16.0	7.30	16.0	20.0	21.0
9.16	9.55	9.22		8.18	9.20	8.34
21.0	20.0	17.0	8.38	16.0	20.0	21.0
9.43	10.15	9.70		9.36	9.65	8.89
21.0	20.0	17.0	8.98	16.0	20.0	21.0
9.68	10.35	9.94		9.58	10.15	9.25
21.0	20.0	17.0	9.23	16.0	20.0	21.0
9.80	10.52	10.00		7.67	10.12	9.34
21.0	20.0	17.0	9.30	16.0	20.0	21.0
9.88	10.03	9.80		9.78	9.95	9.36
21.0	20.0	17.0	9.40	16.0	20.0	21.0

- 189 - 2 police badge in Br 1 K^u pipe Br ^{5/8}
 2 phone pins & one fusul,
 3 " oak Br 11 x 3 fusul,
 2 fusul was 1 wff
 2 cork Br 11 x 2 fusul for light
 1 R page 1 5 clust Br 11 x 1 light
 1 light oak oak Br 11 x 1 page,
 1 " fusul " "
 3 Br 11 x 1
 1 Phone Box 18 x 18 x 3 1/2 1/2 1/2
 1 Sw. 3 ring. cut 11 x 11 - 11 x 11
 2 light in put shed 2 small beads
 Br 11 x 11 - 11 x 11 1 x 8 for ring 2 x 11
 2 x 11 Br 11 x 11
 2 x 11 Cladding - 11 x 11
 2 x 11 beads Br 11 x 11
 2 x 11 Br 11 x 11
 3 Br 11 x 11 11 x 11 Br 11 x 11
 2 x 11 Br 11 x 11

message in Spinalding

- 185 - 2 poles - 2 angle Br 11 x 11
 11 x 11 pipe Br 11 x 11
 11 x 11 Br 11 x 11 2 Phone fusul
 1/2 Angle Br 11 x 11 11 x 11
 11 x 11 fusul & 11 x 11
 11 x 11 fusul 11 x 11
 11 x 11 11 x 11 for Spinal

11 Single Poles

Blumens

+ R. 4x4

1-12 bet

2x4

2x4

2

7-2x4

2x4

+ R. 4x4

2x4 + 2x4 at side

biapinal Decais 2x4

Realfin Model 3x2-10" Rev.

8 ft chs 6x6 Sills 2x2 joints 2x2

2x2 plank 2x4 budding

H186 - Last pole anchored. Cement

2 small pins 2x4 5/8" screws

anchor w/ out bump pole

2 phone Insul + Bracket

1 wheel for for side 1 Angle Dump Box

1 small anchor can machine feed

to spin wheel - End of spin 1/0

1 wheel 2x4 for spin wheel

1 dead leg 186 to 185 + 1 wood str Insul

2x4 cellulose and things

2 tie corner posts

5 - 4x4 Braces + 4 wire Braces

6 3x4 posts wings

H185 anchor dets

sideing wheel ends at 186

Dead leg 185 to 184 + 2 wood str Insul

Cross Section of Nisson

Sta	B.S.	H.T.	F.S.	Elev.
B.M.	74.4	81.15		73.71
T.P.	2.19	80.67	2.67	78.48

Center of Co. Road

At Fence

Cor. Lot 1-2

" " 2-3

N.W. Cor. Stice & Property Line

N.E. Cor

N.W. Cor of Stice and Nisson

+50 at property line N.W.

N.W. Cor of Stice & Railroad

Cor 12

T.P. 5.92 86.36 6.24 74.43

Cor 2-3

3-4

4-5

5-6

6-7

7-8

8-9

9-10

N.W.

B.M.

71.73

Live and Stice St.

Left

Center

Right

130	125	119		8.2	7.3	8.1
1500	1000	500	10.0	50.0	100.0	150.0
9.7	8.1	8.2		6.4	6.7	5.8
30	19	19	47	15	17	30
	23	16	47		4.6	3.6
	31	17			19	21
27	26	27		4.8	4.9	3.9
21.5	21	17	44	17	19	31
70	75	72		5.1	5.5	4.5
8.4	21	7	50	17	19	20
70	68	24	49	4.4	4.7	3.8
30	20	17		17	21	22
40	44	41	39	3.4	3.7	2.5
PROPL	160	14		100	200	25
	21	28		3.7	18	17
20	100	73	2.2	11	190	20
PROPL	20	29		27	17	13
PROPL	160	73	2.5	17	190	20
70	65	70	63	4.2	4.3	3.5
50	20	17	17	17	21	230
						20
65	59	62	60	3.4	3.6	2.4
30	21	19	17	17	19	21
60	56	64	57	2.8	2.6	1.8
30	21	19	17	17	19	21
67	63	70	65	3.4	3.0	3.2
30	21	19	17	17	19	21
24	22	29	24	6.4	6.8	5.7
30	21	17	17	17	19	21
28	23	24	29	7.6	7.9	7.1
30	21	17	17	17	19	21
81	82	79	87	8.1	8.4	7.6
30	21	17	17	17	19	21
80	84	90	88	8.4	8.8	8.1
30	21	17	17	17	19	21
80	85	92	89	8.4	8.8	8.1
30	21	17	17	17	19	21
80	86	98	86	8.6	8.8	8.2
30	21	17	17	17	19	21

Live Stice

Cross Section of Spur - Sta 253+27 - 258+22

Sta B.S. H.I. F.S. Elev Grade

B.M. 68.76

258+22

5.87 74.63

258+22

258+00

71.60

257+50

257+00

71.80

256+50

256+00

72.00

255+50

255+00

72.15

254+50

254+00

72.25

253+50

253+27

72.20

Check on grade at Right 254+23 72.3 72.25

Spur at Sta. 66+25 to Sta

B.M. 2.80 151.48 148.68

66+25 148.59

66+00 148.40

65+50 147.88

65+00 147.35

64+50 146.68

64+00 146.00

Check on grade Left Sta 63= 6.93 144.55 144.5

shots taken 5.2' from gauge side of right hand

Top of roadbed	Ditch	Left side	Center	Right side	Not gauge
$\frac{3.6}{5.2}$	$\frac{5.1}{9.0}$	$\frac{4.9}{11.0}$	$\frac{4.3}{16.2}$	$\frac{4.2}{22.2}$	$\frac{5.0}{23.2}$
$\frac{2.1}{5.2}$	$\frac{4.8}{9.0}$	$\frac{3.9}{11.0}$	$\frac{4.2}{16.2}$	$\frac{4.2}{22.2}$	$\frac{4.9}{23.2}$
$\frac{3.2}{5.2}$	$\frac{4.2}{9.0}$	$\frac{3.6}{11.0}$	$\frac{3.8}{16.2}$	$\frac{4.0}{22.2}$	$\frac{4.9}{23.2}$
$\frac{3.0}{5.2}$	$\frac{4.0}{8.2}$	$\frac{3.3}{10.0}$	$\frac{3.3}{16.2}$	$\frac{3.5}{22.2}$	$\frac{4.4}{24.0}$
$\frac{2.7}{5.2}$	$\frac{3.2}{9.0}$	$\frac{3.3}{10.0}$	$\frac{2.8}{16.0}$	$\frac{2.6}{21.0}$	$\frac{4.0}{23.0}$
$\frac{2.5}{5.2}$			$\frac{2.5}{13.0}$	$\frac{2.5}{22.2}$	$\frac{3.5}{24}$
$\frac{2.3}{5.2}$			$\frac{2.2}{13.0}$	$\frac{2.3}{20.0}$	$\frac{3.3}{23.0}$
$\frac{2.5}{5.2}$	(2.2) 7.0	End	$\frac{2.1}{13.0}$	$\frac{2.6}{21.0}$	$\frac{3.5}{24.0}$
$\frac{2.6}{5.2}$			$\frac{2.3}{13.0}$	$\frac{2.5}{20.0}$	$\frac{3.4}{23.0}$
$\frac{2.4}{5.2}$			$\frac{2.5}{12.0}$	$\frac{2.5}{18.0}$	$\frac{4.1}{21.0}$
$\frac{2.3}{5.2}$			$\frac{2.5}{10.0}$	$\frac{2.6}{17.0}$	$\frac{3.3}{19.0}$
$\frac{2.5}{5.2}$			$\frac{2.9}{8.0}$	$\frac{3.0}{12.0}$	$\frac{3.3}{13.0}$

32	3.8	3.6	0.1				
6.6	8.0	14	19.0				
34	3.9	0.1					
7.2	17	22.2					
36	3.8	17					
9.0	20.0	22.8					
42	3.9	3.6	17	3.0	2.3	2.2	
7.0	13.0	19.7	27	2.9	3.3	4.3.0	
5.0	4.7	4.5	32	3.1	4.1	3.4	3.4
7.0	13.0	1.6	19	2.4	2.6	3.0	4.0
5.5	6.2	5.5	5.4	4.9	4.4	4.6	
6.0	7.3	11.0	17	2.7	2.9	3.8	

Center of road

Sta	B.S.	H.I.	F.S.	Elev.	Grade
-----	------	------	------	-------	-------

B.M.	340	94.41		91.01	
------	-----	-------	--	-------	--

Stony Point Co road

139+00				89.6	88.6
139+50				89.6	88.7
140+00				89.4	89.0
140+50				89.3	89.6
141+00					89.3
141+50					89.0
142+00					88.6
142+50					88.1

T.P.	on grade	R of 142+50	5.27	89.14	
	335	92.49			

143+00					88.0
143+50					87.8
144+00					87.9
144+50					87.8
145+00					87.6
146+00					87.3
147+00					87.0
148+00					86.9
149+00					87.1

T.P.	(on grade	R of 149+00)	4.03	88.46	
	460	93.06	5.34	87.72	

Check on bench opp 154+00 = 87.73

Left.

Center

Right

$$\frac{0.05}{50.0}$$

$$\frac{3.0}{8.0}$$

3.5

$$\frac{4.1}{50.0}$$

$$\frac{4.0}{75.0}$$

Cont of Cont.

Dist. taken from center line to the left.

$\frac{5.0}{9.0}$	$\frac{4.9}{19.0}$	$\frac{5.1}{24.0}$	$\frac{4.3}{34.0}$	$\frac{3.8}{37.0}$	$\frac{3.3}{37.0}$	$\frac{3.3}{46.0}$	$\frac{0.9}{53.0}$	$\frac{0.2}{62.0}$
$\frac{4.9}{13.0}$	$\frac{5.0}{22.0}$				$\frac{5.0}{30.0}$	$\frac{4.2}{31.0}$	$\frac{3.2}{43.0}$	$\frac{0.4}{49.0}$
$\frac{5.0}{11.0}$	$\frac{5.0}{3.0}$	$\frac{5.2}{26.0}$	$\frac{5.6}{27.5}$		$\frac{4.3}{31.0}$	$\frac{2.9}{32.0}$	$\frac{2.6}{39.0}$	$\frac{0.3}{45.0}$
$\frac{5.2}{10.0}$	$\frac{4.8}{19.0}$	$\frac{4.8}{27.0}$			$\frac{4.1}{28.0}$	$\frac{2.3}{31.5}$	$\frac{1.9}{38.0}$	$\frac{0.8}{40.0}$
$\frac{4.9}{9.0}$	$\frac{4.7}{13.0}$	$\frac{4.8}{15.0}$	$\frac{4.7}{27.5}$		$\frac{3.9}{29.0}$	$\frac{2.2}{32.0}$	$\frac{1.7}{38.0}$	$\frac{0.6}{49.0}$
$\frac{5.0}{9.0}$	$\frac{5.2}{16.0}$	$\frac{5.6}{19.0}$	$\frac{5.3}{27.0}$		$\frac{5.0}{29.0}$	$\frac{3.6}{30.0}$	$\frac{3.0}{36.0}$	$\frac{1.6}{42.0}$
$\frac{5.5}{13.0}$					$\frac{5.5}{28.0}$	$\frac{4.6}{38.0}$	$\frac{4.0}{37.0}$	$\frac{1.8}{44.0}$
$\frac{5.8}{15.0}$	$\frac{5.3}{21.0}$				$\frac{5.0}{24.0}$	$\frac{5.0}{22.0}$	$\frac{5.1}{38.0}$	$\frac{3.1}{44.0}$

$\frac{3.8}{7.5}$	$\frac{3.6}{15.0}$			$\frac{3.8}{23.0}$	$\frac{3.9}{37.0}$	$\frac{3.6}{40.0}$	$\frac{1.6}{46.0}$	$\frac{1.0}{53.0}$
$\frac{3.8}{9.0}$	$\frac{4.1}{22.0}$	$\frac{4.2}{29.0}$		$\frac{4.0}{40.0}$	$\frac{2.0}{44.5}$			$\frac{1.5}{53.0}$
$\frac{3.9}{9.5}$	$\frac{4.3}{19.0}$	$\frac{4.2}{36.0}$		$\frac{2.7}{43.0}$				$\frac{1.9}{51.0}$
$\frac{3.9}{8.6}$	$\frac{4.5}{15.6}$	$\frac{4.5}{24.0}$		$\frac{4.2}{53.0}$	$\frac{3.0}{39.2}$			$\frac{2.1}{49.0}$
$\frac{4.2}{8.5}$		$\frac{4.3}{31.0}$		$\frac{2.9}{37.0}$				$\frac{2.2}{46.0}$
$\frac{4.2}{10.0}$		$\frac{4.6}{23.0}$		$\frac{2.6}{30.0}$				$\frac{2.0}{38.0}$
$\frac{4.4}{9.5}$		$\frac{4.3}{17.0}$		$\frac{2.6}{24.0}$				$\frac{2.3}{39.0}$
$\frac{4.1}{10.0}$		$\frac{5.4}{10.0}$		$\frac{2.6}{21.0}$				$\frac{2.6}{30.0}$
$\frac{4.1}{8.0}$		$\frac{5.0}{10.0}$		$\frac{3.3}{19.0}$		$\frac{2.6}{28.0}$		

New Bench 87.81 nail changed

Grade for top of platform Boysen Sta

Sta B.M. = 68.76 76.75

756 76.32 .43

183- Snuff from Andy on. to serve put on South
1 small piece Subul.
kind of Fred West. 1/2 roller can feed - 1/2
from Fred to Andy

on rail m. track

top rail on siding

Grade Top Floor Two Rock Freight-Shed.

Floor of Car

Top of Rail

= Grade of Top Rail Side Track

Grade of Floor of Freight Shed

#183 pulley anchor bolts

phone line arm 2 Insul.

feeder 2 Insul same as phone

" 2 wood st Insul.

" 1 - 4 bolt sq. clamp

182 X W Sign. anchor bolts
phone bolts feeder 1 Insul.

181 bolts anchor phone feeder msg wire,
2 clss & clamps
2 Rd msg plant 4 x 2 - 12 ft
2 Run bolts
12 Bolts 4 x 4 - 12 ft. 4 wire brace
12 Spkt post at wire
2 - 8 x 8 bolt post. 4 - 6 x 6
#180 bolts anchor, phone, feeder, msg
+ Trussing

Grades along Nisson Ave

B.M.				7371	
Sta	B.S.	H.I.	F.S.	Elev	Grade
	7.57	81.28	6.96	74.32	
	6.13	80.45			
			10.45	94.5	70.0
1+00 West			6.03		
"			7.70	72.75	8.1
100 "			4.40	6.45 5.45	75.0
50 "	75.75 73.05 76.35		4.7 3.4 14.1	5.45 4.45	76.0
0+00	75.25 73.85 76.65	West Street	5.20 7.25 4.8	5.45 4.45	75.0 76.0
0+00	76.55 73.35 76.00	E.	3.90 7.10 4.45	5.45 4.45	75.0 76.0
+51	75.95 74.35 76.40		4.15 6.1 4.05	5.45 4.45	75.0 76.0
1+0.2	74.55 77.00 76.80		5.90 3.45 3.65	5.45 4.45	75.0 76.0
+53	74.90 78.21 77.05		5.55 2.2 3.40	5.45 4.45	75.0 76.0
+54		Top of Sike to South of 1+53			
	6.05	80.92	5.58	74.97	
2+04	74.20 77.57 75.94		6.72 3.35 5.0	5.92 4.92	75.0 76.0
2+55	73.19 75.27 75.12		7.73 5.65 5.80	5.92 5.00 5.00	75.0 76.0
			27.8127	4.92	

B. 14

Center

Right

S

N.

+ .85

$$\begin{array}{r} +0.4 \\ \hline 20 \end{array}$$

$$\begin{array}{r} =1.6 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} -2.7 \\ \hline 20 \end{array}$$

$$\begin{array}{r} -1.0 \\ \hline 20. \end{array}$$

$$\begin{array}{r} 1.0 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} 2.0 \\ \hline 20. \end{array}$$

$$\begin{array}{r} F. 2.0 \\ \hline 20. \end{array}$$

$$\begin{array}{r} c. 0.35 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 0.75 \\ \hline 20 \end{array}$$

$$\begin{array}{r} F. 1.8 \\ \hline 20 \end{array}$$

$$\begin{array}{r} F. 0.05 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 0.25 \\ \hline 20 \end{array}$$

$$\begin{array}{r} F. 1.65 \\ \hline 20 \end{array}$$

$$\begin{array}{r} 0.0 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 1.55 \\ \hline 20.0 \end{array}$$

$$\begin{array}{r} F. 0.65 \\ \hline 20.0 \end{array}$$

$$\begin{array}{r} c. 0.4 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 1.3 \\ \hline 20. \end{array}$$

$$\begin{array}{r} F. 0.45 \\ \hline 20. \end{array}$$

$$\begin{array}{r} c. 0.80 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 2.0 \\ \hline 20. \end{array}$$

$$\begin{array}{r} F. 0.1 \\ \hline 20. \end{array}$$

$$\begin{array}{r} c. 1.0 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 3.25 \\ \hline 20. \end{array}$$

$$\begin{array}{r} F. 0.8 \\ \hline 20 \end{array}$$

$$\begin{array}{r} F. 0.1 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 2.57 \\ \hline 20.0 \end{array}$$

$$\begin{array}{r} 1.8 \\ F. (1.3) \\ \hline 20 \end{array}$$

$$\begin{array}{r} 0.9 \\ F. 0.4 \\ \hline 0.0 \end{array}$$

$$\begin{array}{r} c. 0.77 \\ \hline 20 \end{array} \quad \begin{array}{r} 0.77 \\ \hline 20 \end{array}$$

80.92

3+06

72.03
72.59
73.288.89
8.33
7.646.92 74.0
5.92 75.0

+57

71.64
72.02
72.699.28
8.90
8.237.42 73.5
6.42 74.5

4+08

71.97
71.58
72.408.96
9.34
8.527.92 73.0
6.92 74.0

+59

71.84
71.83
72.369.18
9.09
8.568.42 72.5
7.42 73.5~~5+10~~72.0
7.92 73.0

Bm.

in Rock

9.12 71.80

t.p.

Top 1+50 (L)

6.06 74.86

7.93 82.79

8.98 73.81

8.98 82.69

73.71 Bm.

at Mason and Rice

5.75 67.1 76.48

center

4.33 54.1 77.28

at Railroad

4.81 4.61 78.01

||

#179 ditto

#178 Whistle Sign board 2x10x9 ft

ditto angle phone hook

Single wire sign Andy anchor 5 ft
post in south of 1 small piece Insuli

L S.	C	P N
$F \frac{2.0}{20}$	$F \frac{1.72}{0.0}$	$F \frac{1.4}{20}$
$F \frac{1.86}{20}$	$F \frac{1.8}{0.0}$	$F \frac{1.5}{20}$
$F \frac{1.03}{20}$	$F \frac{1.6}{0.0}$	$F \frac{1.42}{20}$
$F \frac{0.66}{20}$	$F \frac{1.14}{0.0}$	$F \frac{0.67}{20}$

#177 ditto

176 Anchor ditto Phone 1 Glass Tawpes
Feeder ditto - Single wire anchor for
Bracket to fence post on South + 1 Insul.

175 - ditto standard

174 ditto - Single wire Anchor Bracket
to fence post on South + 1 Insul.

$F .02$
173 ditto standard
Diagonal Head Guy 173 to 172
Thread sb. Insul'

172 Anchor ditto - phone 2 pins in 7mm
2x4 Brackets + Insul top of pole
Single wire Guy Br to frame + 1 Insul

Grades for Stations and Platforms

Top of rail = .35 from base of rail.

B.M. B.S. HI. F.S. Elev Grade
77.00

A172 - 24 Xing plank 4x12 - 14
1 Dumble - 1-8x8 + 1-6x6 post
1 Cattle Sd-rings
7- 4x4 Braces 3 wire braces
2 Tie corner posts
8 Spent posts

Baypen

Fence on North End of Rd. tying

E. line post plank

Post plank 12 in 2x12 - 14

Signmen 4x4 post 12th.

30 left 4x4 posts

21 " 1x4 Bracing

40 " 2x4 "

3 - Sills 4x6x12 ft.

2 - 1x6 - 14 bracing

2 - 2x12 - 16 Guard 1st step

1st plank 2x - 2x12 - 16

roundsails 3x12 - 12

40 lin ft 4x6 posts

10 " " 6x6 "

45 " 4x6 "

50 " 2x4 Braces

38 " 1x6 "

4 Sills 4x6 - 22 ft

Linn Rock Branch

W. G. J.

6 Slegs 2 1/2 - 2 ft.

Signboard 3 x 8 - 8 ft. 1 m Buelt 1/2 x 10

1 m Sign 3 Buelt. 1 Rubber Band

171 1/2 Brackets - feeder Standard

Phone - 2 pins on Xam 20 x 8

Brackets & Insul. top of Pole

Trolley for Sprm ends halfway

bet. 172 + 171

Select Shm. Sun. Line + 2 Wood

St. Insul. from 172 to end of Trolley

on Sprm. Sleene at feeder 1/2 way

bet. 172 + 171

Trolley car for Sprm

170 - Archon dills - phone - 2 pins on Xam

2 m Buelt & Insul. top of Pole

Trolley car for Sprm 1/2

1 Rail Brace Reels at each end.

8 Slide

1 Chest string fence between North

5 - 12 x 12 braces 1 Wire Brace

1 Tie Carman post

7 Split posts

Trolley Sleene 1/2 way bet. 170 + 169

Spr. Trolley ends 10' W. of 169

Select Shm. West Sun. end of Trolley 118 of 2 ^{and} 80 ^{and} 200

191.17

287.450

287.450

TP

346

193.28

288.00

+17

+50

289.00

+50

290

+50

291

+50

292

+50

293

+50

2.0

189.17

1.55

189.72

13.5

189.82

3.0

190.28

3.55

190.23

3.3

189.98

3.3

189.98

4.65

188.63

5.6

187.68

6.5

186.78

6.5

186.63

6.5

186.38

7.2

186.08

7.8

185.48

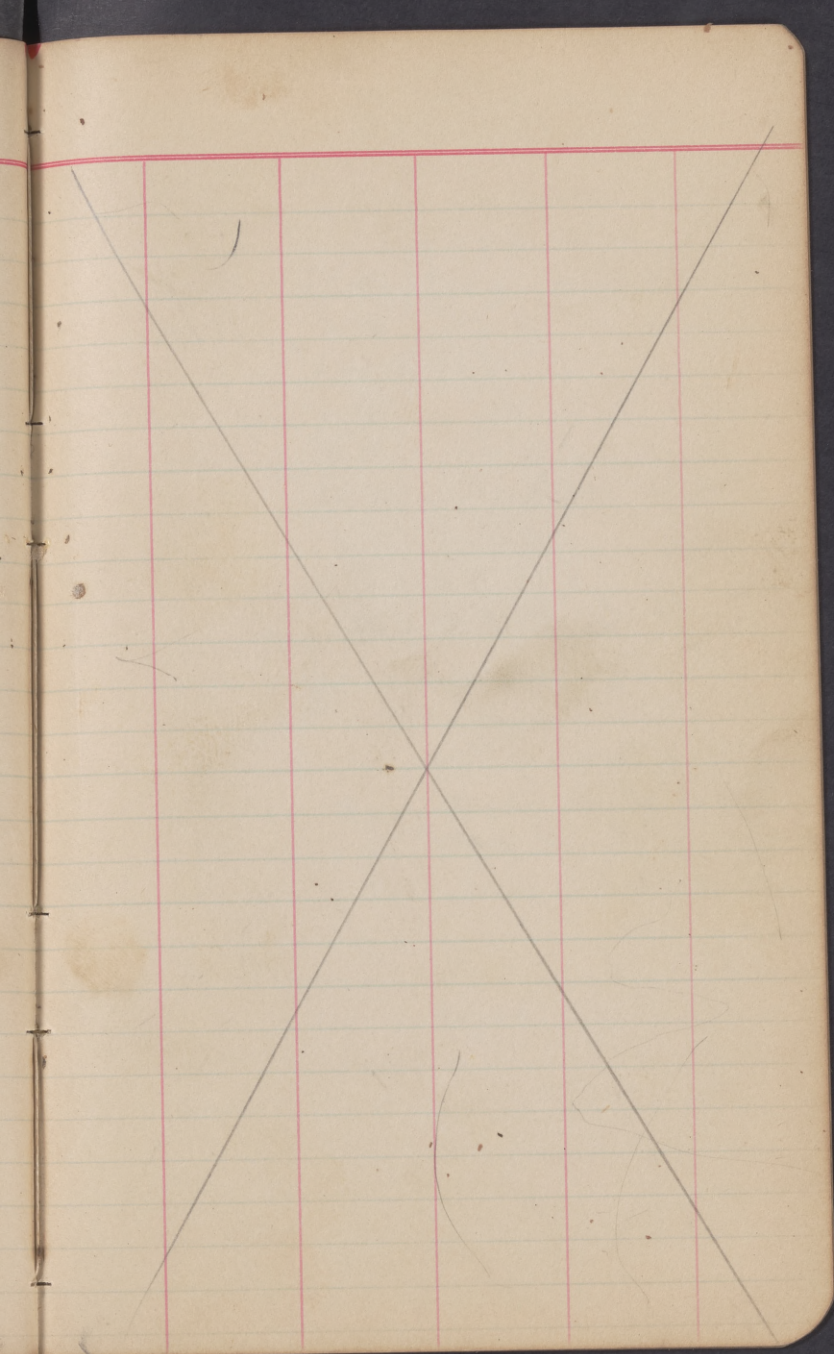
8.2

185.08

8.3

184.98

Copied



Sta. B.M.	B.S.	H.I.	F.S.	Elev.	Grade
	9.14	82.85		73.71	
top Rail Siding			4.76	77.9	
Ground			4.5	78.36	
			4.0		78.85
			4.0		78.85
			4.5		78.35
Top flat-leaf fence			0.95	81.9	
935 ft E to N.W. corner					
820 to post					
547 to car					
930.5 to X fence					
1991 to R.W. fence					
2075 to					
				55.24	
	8.20	63.44			
			3.55	59.89	
			0.41	63.03	
	11.25	74.28			
			1.45	72.83	
	5.64	78.49			
			0.72	77.77	

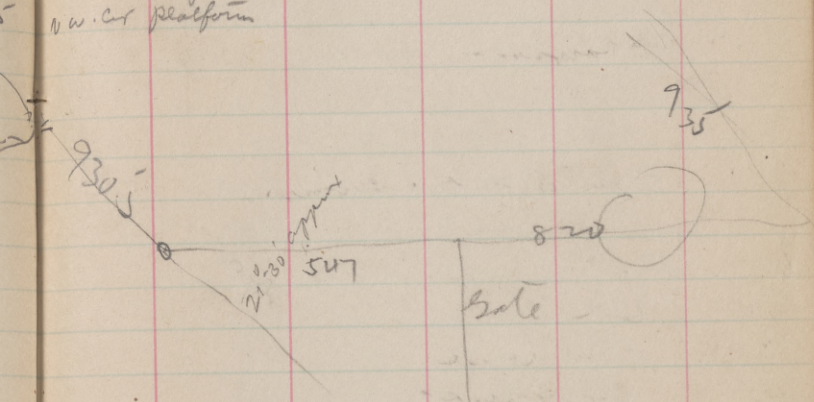
82.85	82.85	14.55
78.35	3.86	23.5
<u>4.80</u>	79.9	16.90
	81.9	12
	<u>78.35</u>	4.90
	3.6	

Subgrade	77.00
Base Rail	78.00
Top Rail	78.35

5 W. Car

5 N.W. Car Bldg.

5 N.W. Car Platform



169

standard - phone arches &c

168

X.W. Sign on Pole

Phone / Pole in X-arm + Glass Transpore

1 anchor standard

1 Wood 11 Heavy wire parallel to track

2 wood str. Insul.

12 pole Br. n caps 12 x 12 - 12 ft

2 str 12 x 12 - 10

2 str 12 x 12 - 10

12 the plates

36 cut 3x8

66 " 3x12

28 " 3x8

42 " 3x12

12 " 3x8

18 " 3x12

#167 Standard

#166 "

#165 "

1 wood clad rwinps

2 planks 4x12 - 12 ft

2 dumbbells + 2 - 8x8 - 2 - 6x6 posts

6 - 2x4 braces

4 wire braces

to split posts

#164 Standard

diag. Headling 2 wood clad rwinps, 163

#163 at well - small shawl guy for

to port S. of Truck

1 Burt clamp on feeder & anchor to

pole 12 ft shawl line 1 wood clad rwinps

phone 1031 pole guy down

mess joint through 163 to 162

3 - 3 Burt clamps

Headling 163 to 162 mess anchor

0 2 wood st insul.

162 - No pole anchor
Bury bar B to fence post ^{1 down} S. 7 line
phone & feeder standard
insprachy - 2-4 Bolt clamps
1 ft shunt + 1/2 wood st insul
+ 2 wood st insul.
small anchor 2 cross bars
1 ft shunt & 2 wood st insul
2 Bracket Eyes
3 Peant 4x12 - 12-1-4x12-4
2 Durabats - 2-8+8 + 2-6-6 p/b
8 Bars 4x4 - 3 wire Bars
8 wood cs. & knips
6 split p/b

163 #161 - Phone Feeder mag. Tracley Standard
~~pole~~ pole anchor broken off
Diagonal Headling 161 1660 ² _{st} _{insul}

#162 - phone 1 pm & Glas transp.
pole anchor standard

#159 standard

#158 do

#157 do

- #156 Standard
 #155 do
 #154 do
 #153 do
 #152 do except phone 1 pin & glass transp.
 #151 do.

2 wood surface cbs. & wings

2 Clamping beams 4x12-12ft.

2 Trumbulls 2x8 + 8x8 parts 2 Tr. Girders

12-4x4 Braces 4 wire Braces

12 Spat parts

- #150 Standard

#149 do.

#148 do

#147 do except Gyr. beam 1.5 ft. ^{1 Busul.} fence on South

Cross Band

- #146 Standard

#145 do

#144 do except phone 1 peg & Glass Transp.

#143 do

2 clds + wings

2 Clamping beams 4x12-12ft

2 Trumbulls 2x8 + 8x8 + 2-6x6 Girders

11-4x4 Braces 4 wire Braces

- #142 Standard

#141 do

#140 do 2x10-9 Whistle part on South

- #139 Standard
- #138 do
- #137 do
- #136 do except Phone Glass Transp
- op. #135 Cement pole anchor
Log anchor parallel to track ^{25' int} $\frac{3}{4}$ " Red $\frac{7}{8}$ " ^{2nd stg} standard
Feed wire feeder to trolley & trolley ear
Diagonal Guy $\frac{7}{8}$ " ^{3rd} Stems 131 to 134 - 2 wood stg
- W. #134 Anchor ok. 2 ^{Phone} pins in cross arm
2 rat brackets & 3 ins. top of pole
Messgr anchor - Guy 131 to 134 + 2 wood stg
" " " 134 to 133 ^{8' 2"} " " "
2 - 4 Bolt clamps in messgr ^{12' 6" Guy line} 12' 6" Guy line
2 trolley ears & trolley anchors 12 ^{2nd & 3rd} Guy line
2 Bracket types - 1 trolley & 1 messgr.
Trolley Guy to 134 to 133 + 2 wood stg
1 wood cleat & wings
4 - 4 + 4. Brace 2 wire brace
2 tie corner parts - 7 Split parts
4 Crossing Plate 4 + 2 - 18 ft.
1 Redding Sign
Psgn platform 14 ft x 16 deep
Walker Statue Sign on 4 + 4 - 12'
4 Shingles 4 + 6 - 12'
12 pulleys 4 + 4 - 1 ft. 12 mud Sels 3 + 2 - 12'
culvert 6' x 8' - 32 ft. 10' x 22' sand
do within of Road. 6' mud 16' turn corner

$$2 \times 6 = 6 + 7$$

$$1 \times 6 = 8 + 18 + 12 + 12 + 12 + 16 + 16 + 24 + 10 + 24$$

$$2 \times 6 = 6 + 8 + 7 + 6 + 8 + 8 + 16 + 14 + 16$$

#133

2 poles - 2 Gum Br. n. v. pole

4x4 cross arm + 2 phone pins

2 phone cutters + 2 small. top of pole

Walker Spine Trolley End at pole

Steel Str. Guy End of Trolley to 134 + 2 small

2 Rural phone pins small. top of pole

no cement pole anchor

Log Anchor parallel to road 3/4" Red 2 small

Guy from 133 North to 133 South + 2 small

1 - 2 Bolt clamp on feeder 1/4" Guy arm

133 South - 2 Log Anchors Heavy Straps

+ 4 wood str. small. 1 single trolley

Pull off anchor + Guy to pole 133 South + 1 wood str. small

7 ft platform

33 plank 2x12 - 9' to 24' - 15 - 2x12 - 24'

6 steps 2x10 - 2 ft

16 lb ft 6x6 - 10

56 " 1 4x6 10

14 posts 4x6 - 4 ft

32 mudsills 4x12 - 1 ft

6 Sills 4x6

13 lugs 2x6 beams

152 " 1x6 "

521 " 2x4 "

7 ft Sign 4x6 - 7 ft metal sub sign metal

metal 8" 5" metal

3 miles from 1/2 mile rail beyond end
 5 feet in. Ball bar 5 rails
 4 Rail joints beyond 7 ft
 6 " " " 1 ft 6 in.

#132 4 Spert posts in Retn.
 3 Tie posts 2-4 x 4 Braces 3 line Braces
 2 Phoebe in corner - 2 out Br. + 5 rail tie
 2 poles ^{only Br. 1} - 132 North Logancher 132 South + 2nd St
 Pull off 132 S. to Trolley (Turn) in line 132 S. 1 and 2nd St
 Guy for 132 N. to 132 S. + 2 and 3rd St
 Pull off line 132 S. to 132 S.
 1 pull off at ch to Trolley Moqr. 2
 1 wood St. Insul - 1 - 2 half Stud 18 spreader
 Spm Trolley pull off from feeder 10
 1 4 x 4 - 12 brace 1 line Br. 1 Tie post
 Spm Trolley ends at 19800
 Guy from end of Trolley to Pole 130 2nd St
 Pull off line 132 S. to 131 S.
 1 " " at ch to Moqr + Trolley same as above

#131 N. Logancher parallel to road 2nd St Insul
 Phoebe: Feeder 4 Ball clamp 12 mile
 to pole 131 + 1 wood St. Insul.
 Guy for 131 N. to 131 South + 2nd St Insul
 Pull off for 131 S. to Trolley (single) + 1 wood St. Insul
 4 Logancher 131 S. + 4 wood St. Insul
 4 tie corner posts 4-4 + 10 Braces
 10 Spert posts 8 mile Braces
 150 we pile only Phoebe feeder standard.
 no pile anchor

- 130 Mesn anchor 1315 Br at 130 x 2 u.s. 2.
 Feeder " 131N " " " 130 x 2 u.s. 2.
 Mesn " 129N " " " 1309 2 u.s. 2.
 " - 2 # Ball clamps 12' wire x 2 u.s. 2.
 Hoisting 2 Anchor Ears 12' wire x 2 u.s. 2.
 2 Br Eyes - 1 Mesn x 1 Hoisting
 #129 Log anchor parallel to hook 2 u.s. 2.
 One full T. 1 M. Standard
 #128 Cement anchor loose at bottom
 2 pins in cross arm - 1 Glass transp.
 #127 4 x 4 Brace x 1 wire Brace
 Cement anchor loose at bottom
 X.W. Symon pole - all else standard
 #126 Cement anchor loose at bottom
 All else standard
 #125 Standard except Anchor tied to first post
 #124 - 2 - 6 x 8 - 12 Sw ^{nickel} ^{iron} ^{rod} ^{lying} ^{along} ^{here}
 1 cb. ring between 2 drums
 2 - 8 x 8 - 2 - 6 x 6 Gate posts
 1 pr of cranked 60° angle bars
 12 tie plates in bridge
 11 Piles
 4 pos 3 x 8 x 18
 4 " 3 x 12 x 18
 8 Braces 4 x 4 2 wire braces
 6 spigot posts 2 tie posts
 4 mesn anchor tied to first post
 4 mesn cross beam 1 x 12 - 16 ft 1 cb. chain

- #124 Joint in truss - 3 - 3 bolt clamps
 #123 Standard
 #122 do
 #121 do except phur 1 Glass Transp
 #120 do " 1 Pure Diesel not used
 #119 do
 #118 do
 #117 do
 2 Tree posts - 1 - 4x4 brace - 2 wire braces
 #116 Standard
 #115 do
 #114 do 1 - 4x4 brace 1 wire brace
 #113 do 3 Tree posts 2 wire braces
 #112 Trolley wire joint sleeve
 Pole anchors inserted to support
 2 phur pins + 1 Glass Diesel Transp
 #111 sta 167+20 2 cts. Gate post & limbs not in
 1 Gate post in - 1 Gate limb in
 2 xing plan 4x12 - 2 ft.
 167+20 cts xing
 height culvert 5x11 - 18 ft.
 height 10x20 - 20 ft.
 Overhead standard - Pole anchors tied to fence
 4 - 4x4 braces 3 wire braces
 Wheel fence wire (hung in)
 #110 Standard
 #109 do 1 Pure Diesel not used 1 Glass Transp

Sta 164 to - 2x10-9' Whistle Synch Bunk

12 Tre poles on Br. 12 piles

4 m 5x8-12ft. (7)

4 " 2x12-16ft.

108

Standard

107

do. 1 Est. log anchor 2 w.s. 2,

7 cedar tap to trolley

1 Tre post - 1-4x4 brace 1 wire Br.

106

Proganah - 2 w.s. 2,

Musyn Anchor 107 6x6 - 4 1 w.s. 2

" " " 105 6x6 " 1 w.s. 2

" 2-4 Bolt clamps 6 wire 2 w.s. 2.

2 Trolley anchor rods 12 wire 2 w.s. 2,

2 Braceful eyes 1 wire to trolley

H105

Standard except 1 Est. log Anchor 2 w.s. 2

1 wire c.s. shims

" 2 c.s. Est. (lateral)

2 Tre posts 6 split posts

6-4x4 braces 3 wire bands

House

rat. 20 long x 16 high 2x12

6 steps - 2x10-2ft.

Symport 4x6-8ft metal Symport

(3) 2x12 6x6 posts

(2) 2x12 " 4x6 " w.s. 2 w.s. 2

" 4x6 " 4x4 "

(5) 60ft 2x4 brace

2x4 brace 15x6 brace

17 1/4 14 1/4
 6 1/4 14 1/4
 1 1/4 14 1/4

- 14 #102 Log Ancher - 2 w s. 2
 1 ft. Glass Transp
 1 Pull off Bay 104 L103
 #103 2 poles - 1-2 ft across Bay Slab
 Log Ancher Bay Slab + 2 w s. 2.
 Bay from 103 to Slab 40' + 2 w s. 2
 Pull off 9' from top of 103 T 1 w s. 2
 Trailing Car Pull off 9' to pole 103 0' 1 w s. 2
 11 ft Slab for Rinalphine 8 Rinalphine
 Rinalphine pipe conduit from Slab to 103 + 4 up road
 2 oak Br + 2 Pine Trunk on pole 103 Rinalphine
 50' weatherproof wire
 17 Cansy plan 4x12 - 14
 6 " " " - 16
 1 " " " - 18
 1 Rd house Sign on N. corner
 Hunt Pull off 12' bond by 12' ¹⁴ Lap - 2x2 - 12
 Sympt 4x4 - 12 - 1 Sign
 3 Shingles 12x16 - 14
 9 Posts 4x4 - 1
 9 middle 3x12 - 12"
 1 ^{end} but Brans 1x6
 1 - 6x8 Tie Compust 14x4 brace ¹ brace
 Pull off Bay 103 to 104
 1 Trailing Car pull off 11 way bet 103 102
 1 Short but more pull off Kralen Pull off 1 w s.
 1 Sand 6x8 Compust 1 - 4x12 Br + 1 w s.
 1 w s. 2

#102 Log anchor + 2w s. 2. 3/4" Red
 Phone OK. Feeder 2 per Busel one ^{along} 20' long
 1 trolley car pull off b pole of w s. 2.
 1 msn line pull off b pole + 1 w s. 2.
 pull off Gungun 102 1101
 Pauling total bar - 6-pools 4x4x12
 Guard 4-2x6-12 Paul 4-2x4x 12
 Plus tools near etc

1 Trolley car pull off str span
 1 Short bet msn line + trolley line 1 w s. 2.
 #101 2 Log anchor Gung + 4 w s. 2.
 Phone Feeder OK.
 1 Trolley car pull off b pole + 1 w s. 2.
 1 msn line " " " " + 1 w s. 2.

#100 Standard

#99 do

#98 do

2' x 10' XLW Whistle post 50' E 99 14746
 #97 2 Log anchors + 4 w s. 2. Busel.
 Ph 2 feeders OK.

1 Trolley car pull off b pole + 1 w s. 2.

1 msn line " " " " + 1 " " "

pull off line bet 97 + 96

1 Trolley car pull off at str span

1 Short bet msn + trolley + 1 w s. 2. Busel

#96 Log anchor + 1 w s. 2

Phone 1 per - Gungun transp.

#96 Feeder 2 pins & usual. meadow sparrow
 X W Whistle Symp pole
 1 Trolley car pull off 2 pole of W S 2.
 1 Mosquito wire " " " " + 1 W S 2
 Pull off Symp wire 96 to 95
 1 Trolley car pull off ckt of Spaw
 1 Shut + 1 W S 2 usual

#95 Phone & Feeder OK.
 Log anchor + 2 W S 2.
 1 Trolley car pull off 2 pole + 1 W S 2
 1 Mosquito wire " " " " 1 W S 2.
 Pull off Symp wire 96 to 94
 1 Trolley car pull off ckt of Spaw
 1 Shut + 1 W S 2.

#94 Log anchor + 1 W S 2. Phone OK
 Feeder 2 pins & usual. meadow sparrow
 1 Trolley car pull off + 1 W S 2. 1 Mosquito pull off wire
 Pull off Symp 94 to 93
 ckt of Spaw 1 Trolley car 1 Shut + 1 W S 2.
 Extra pole for Spaw w/ sand
 1 Log anchor + 2 W S 2.
 1 Trolley car Spaw at 140 + 65
 Symp wire end trailing to pole + 2 W S 2.

#93 2 poles #93 N. + #93 S. + 2 W S 2
 93 S, Trolley car to car
 Phone & Feeder OK. Log anchor 93 N. + 2 W S 2
 no anchor 93 S.

#93

Trolley Ear Pull off 1 pole + 1 W 87.

Msg wire " " " " + 1 " " "

Pull off Snymer 93 192

Ch 1 Span 1 Trolley Ear P.O. 1 Short + 1 W 87.

139 + 08 10 Box culv - 6x6-12' Span driveway

1192 Phone O.K. 1 Snymer 1 2 W 87.

Feeder 2 pins + 2 insul (wrens gny)

1 Trans trolley pull off (span end) 1 pole + 1 W 87

1 Msg wire " " 1 pole + 1 W 87.

1 Phone box on pole

2 Oak Br. + 2 insul Round Phone box

+ 2 insul weather proof phone wire

Cherry

4 ft platform 24 pr 2x12 - 16 ft.

Shed 16x8' - 10 ft high - 12' Sable

1x12 SLS + 1x12 Galloway 1 Side + end of 12'

6 posts 4x4x Snymer x 10

Seals in loft 2x4 Snymer

plates 96" 2x3 "

Braces 48 " 2x3

Ground in loft 2x4

Rafter 108 " 2x3

facing 56 " 1x4 SLS

Rafter 18 pr 1x4 - 16'

Shingles Roof 12x18

1-6x8 Snymer corner post - 1x4 W 87 + 1x4 W 87

1 Rafter Snymer

4 Snymer 4x12 - 16'

2x2 4x4 6x6

3 1 1
2 2 1
1 2 1
1 2 1

Cherry 3 10 posts 4x6 - 4
7 " 4x4 - 2
3 " 6x6 - 4

48 light beams 2x4
4 Sills 4x6 - 24

50 light beams 1x6
18 " " 2x6

no mud sill 3x12 - 1 ft.
6 steps 2x10 - 2 ft.

pull off guy wire 926-91

Cherry Spine Tractor fuel off 1 short + 1 W.S. 2

Spine Tractor begins ch of Reeling 138+100
Guy wire end of 1/2 tractor to pole 90 ^{part of 120} + 2 W.S.

Turn Tractor gas (W.S. Spine) roller as separate

from Reel 12+14 22x2 - 14'

1 kind of things 4-6+6 3 small posts

2 ties Cornput 3-4+4 beams 2 line more

Cherry Spine 4+4 - 12 + beam

9 posts 4+4 - 1 ft.

9 mud Sills 4x12 - 12

3 Sills 4x6 - 12 ft.

no light beams 2+4

H 91 2 log anchors + 4 W.S. 2

Phone feed OK.

1 tractor fuel off to pole + 1 W.S. 2

1 more wire " " " " " " " " " " " "

Tractor gas

- #90 - 1 Cement anchor & 1 wood anchor 2 W.S.2
2 P.S.2
1 Feedin tap to hully Molly can
Standard
- #89
- #88 do except there 1 pin & glass hanging
- A 87 do
- A 86 1 Cement anchor & 1 bag anchor ^{but no insul.} parallel to pole
Feedin anchor 1-4 Bolt clamp
w' wire & 1 W.S.2.
- A 85 3 Tree Corn posts 3 wire braces
X.W. whistle Sign on pole
Feedin anchor 1-4 Bolt clamp
15' line & 1 W.S.2. Cement anchor
Diagonal ^{head} Guy #85 & #84 7/16"
6-3x12-24 12 Tree plates
4-3x8-16 12 Poles
1 Cross Band str. & Br.
- #84 Run on pole 84 El. 93.29?
Standard
- #83 do.
- #82 do
- #81 2 Bag anchor Guy 4 W.S.2.
Pinner Feedin ok.
1 Molly can pull off to pole + 1 W.S.2.
1 mason wire " " " " + 1 "
1 pull off wire from 81 to 80
ok of 3 pm 1 molly can pull off
1 shut & 1 W.S.2.

87
S.2

#80

Log anchor + 2 w.s.2.
 Phase 1 Run - Glass Trump.
 1 Trolley Run Pull off to pole + 1 w.s.2
 1 msg wire " " " " + 1 "
 Pull off wire #80 to #79
 Ch of Span 1 Trolley Run pull off
 1 shut + 1 w.s.2 Insul

#79

Log anchor + 2 w.s.2.
 Phase OK. Feeder 2 pins + Insul (Cone Eng)
 1 Trolley Run Pull off to pole + 1 w.s.2
 1 msg wire " " " " + 1 "
 2 tie corner posts 2-4 + 4 Cross 2 knee br.
 Pull off wire 79 to 78
 Ch of Span 1 Trolley Run Pull off 1 shut + 1 w.s.2

#78

Log anchor + 2 w.s.2.
 Ph + Feeder OK.
 1 Trolley Run Pull off to pole + 1 w.s.2
 1 msg wire " " " " + 1 "
 Pull off wire 78 to 77
 Ch of Span 1 Trolley Run P.O. 1 shut + 1 w.s.2

#77

Log anchor + 2 w.s.2.
 Phase OK. Feeder 2 pins + Insul (1 Eng)
 1 Trolley Run pull off to pole + 1 w.s.2
 1 msg wire " " " " + 1 "
 Pull off wire 77 to 76
 Ch of Span 1 Trolley Run pull off
 1 shut + 1 w.s.2.

- #68 Standard
1 Tie Corner Post 1-21+4 On 2 wire Br.
- #67 1 Trailing sleeve Standard
- #66 Standard
- #65 do
- #64 do except phore 1 Km + 6 m + 10 m
- #63 do
2 Tie corner posts 2 wire Braces
- #62 Standard
- #61 do except 5 m End Br. 1 fence 1 ^{line} 2 m
- #60 do 1 Tie corner post
- #59 do
- #58 do
- Musq Junction - 3-3 Built clamps
- #57 Standard 2-4+4 Braces 1 wire Br
- #56 do except ph 1 Km + 6 m + 10 m
- 2 wood cs + wings 2 2 m + 6 m
- 2-5 x 8 posts 4 6 x 6 posts
- 14-4+4 Braces 6 wire Braces
- 2 corner posts 4+12-12
- 2 6 m + 6 m cs. posts 9 split posts
- 20 x 6 + 8-18 S. side 10+20-18 N side
- #55 Standard
- #54 do
- #53 do
- #52 do
- #51 do

Robinson Spr. Galveston

42 2 poles 42 N. & 42 S.

Spr. 1/2 Trolley Ends endy track

Engin End to pole 42 S + 2 W S.

42 N. notches 42 S together 2 W S.

42 N. Extension

1 Trolley End Pull off 1 W S.

ph & feeder ok.

2 Redding Plank 4x12-12 ft.

1 Iron Gate 1-8+8 post & 1-6x8 post

5-4x4 Braces 4 Line Braces

1-6x6 string 8 8 post posts

2-4x6-6+8-18 on N.

1 " " -18 " S.

Feb. 4x14 2x12-14

5 steps 2x10-24

4 Sills 4x6-20

4x posts 4x4-4 1/2 ft.

50 mfr. 24 U Braces

30 " 1x6 "

4x muddles 3x12-12

Support 3+8-10' 1 metal sign box

1 Steel Running Board

color 6x6-18 ft w' west of 43 65+105

21 Standard

brag heading 4x1 4x40 & 2 W S

- # 40 Standard exc. log anchor ^{1 pin} & phone & glass group
- # 39 msgr anchor Pull off #40 & 39 + 1 W.S.D.
- " " " " 39 to 40 + 1 W.S.D.
- " " 2-4 Bull Camp 12' Shaul ^{16 eye} 2 W.S.D.
- Trolley 2 anchor lens 12' Shaul 2 W.S.D.
- all else standard except no pole anchor
- # 38 Standard except 1 log anchor
- Gray Keel Gun #38 & #37 + 2 W.S.D.
- # 37 XW Sign on pole Cement anchor
- 2 tie Cor. Party 2-4 + 4 braces ^{# 38 & 37} 2 W.S.D.
- # 36 Standard
- # 35 do except log anchor
- # 34 do
- # 32 do
- # 32 do except phone 1 pin & glass group
- # 31 do
- 2 tie Cor. Party 2-4 + 4 braces 2 W.S.D.
- # 30 Standard except log anchor
- # 29 N + 29 S. 29 N. no anchor
- 29 S, 2 log anchors + 1 W.S.D.
- Gray 29 N to 29 S. + 2 Pole Str. Ins.
- Trolley on Pull off 29 S to 29 N + 1 W.S.D.
- Pull off wire 29 S to 28 S.
- On 1 Span Trolley Pull off 29 N + 1 W.S.D.
- # 28 N - 28 S 28 N no anchor 28 S. 1 log anchor
- Gray 28 N to 28 S + 2 Pole Str. Ins.
- Trolley on Pull off 28 S to 28 N + 1 W.S.D.

884
886

20	924	147.74	138.50	
78+75#52			7.86	139.88
78			7.74	140.00 7.49
77+25#51			5.61	142.13
77			6.22	597
76	4.72	147.72	6.22	141.50 599
75+45#50			4.74	143.00 4.47
75			3.34	144.34
74+25#49			3.22	144.50 297
74 I.P.R. #48			1.09	146.63
73		154.25	1.72	146.00 147
72			6.90	147.35 6.65
+25#47			5.85	148.40 5.60
71			5.10	149.15 485
70				
+75#46				
69				
2.09		156.30		154.21
65			8.95	147.35
+25#43			7.69	148.61
66			7.90	148.40 7.65
67+75#44			6.34	149.96
			7.15	149.75 6.90
	4.93	154.33	6.90	148.40
68			4.73	148.60 4.48
+75#45			3.69	150.64
69			4.59	149.75 4.33
+75#46			3.69	150.64
70+50			4.73	149.60 4.48
+50			4.96	149.37
71			5.18	149.15
+25#47			4.37	149.96
72			5.93	148.40 5.68
73			6.98	147.35 6.73

62	62
<u>25</u>	<u>30</u>
37	1860
<u>30</u>	<u>15</u>
10100-34+50	
	0-49 70
	-57 69+20

m R grade Sta 79

595

Sta 67 149.15
9
 149.95

15630
627
 150.03
149.95
 8

3P. in cut Grade

	4.68	
506	490	476
528	513	498

6-30-1913

	513	108.26		103.13	Cut
100 ✓			10 4.21	104.05	3.96
99 ✓			2.81	105.45	2.56
98			1.31	106.95	1.06
97 12.95		119.89	1.32	106.94	11.09
96			1.34	108.55	10.59
95 +25 #60			9.64	110.20	9.39
94			7.33	112.56	7.64
93 +75 #62			7.89	112.00	5.89
92			6.14	113.75	4.14
91 90.8		178.08	4.70	115.19	2.39
+75 #60			4.39	115.58	.64
90 +25 #59			2.08	117.81	
89			2.64	117.25	
88 +75 #58			1.89	119.00	
87			7.64	120.44	
86 +25 #57			7.20	120.75	7.08
85			5.02	122.96	5.33
84 +75 #56			5.48	127.90	3.59
83			3.73	124.25	1.83
82 +25 #55			2.39	125.69	.08
81			2.09	126.00	
80			0.33	128.31	
79			0.33	127.75	
78			2.09	125.99	
77			4.98	128.81	
76			5.54	127.75	5.29
75 J.P. 2.7.9		134.15	1.93	131.36	
74			0.66	133.49	
73			3.41	133.53	
72				130.78	
71			4.82	129.37	4.57
70			3.19	131.00	2.84
69			1.06	132.12	
68			1.69	132.50	1.44
67			7.04	134.00	6.79
66			5.26	135.38	5.29
65			5.54	135.50	

7-1-1913

Grade 98

Raise grade from 0.20

C 0.50

C 0.35

C 0.45

C 0.20

F 0.10

F 0.15

C 0.35

C 0.24

C 0.55

C 0.20

C 0.50

C 0.40

C 0.10

F 0.35

C 0.20

J.P.R. 0.12

C 0.60

C 0.40

Dist.

Post ground
Set grade Curt. high

6.98

6.92 .16

5.23

5.00 .33

3.48

3.46 .12

1.83 .00

0.20 Low 12

Raised grade from 0.20

Raised grade from 0.10

J.P. Right grade Sta 87

Ch in B.M. R 86 = 133.53

80 + 25 = B. # 53 141.04

3.41 137.63

80

4.04 127.00

3.71

79 J.P. Right grade

2.54 138.50

2.29

78 + 50 = B. # 52

1.16 139.88

Current notes

127+03	C.J.C.	30" x 24' + 08	End e Right
3+73	C.J.C.	60" 30" x 3 1/2' + 87	" " "
130+49	Box	10' x 18" x 26	
37+65	C.J.C.	48" x 30.6" +	
42+30	C.J.C.	36 x 30	
171+97	Box	10 x 18 x 24	
175+76	C.J.C.	24 x 21'	
181+72	C.J.C.	18" x 24'	
186+99	C.J.C.	24" x 24 + 94	" " "
197+	q'c-c'c		
211+33	C.J.C.	30" 30" x 24'	
215+14	C.J.C.	18 x 20 1/2 + 16	" " "
223+94	C.J.C.	24" x 21' + 93	" " "
227+63		30 x 30 + 60	" " "
230+71		24 x 24 + 71	" " "
241+89	C.J.C.	24 x 27 + 87	" " "
112+84	C.J.C.	30 x 24	
114+41	C.J.C.	30 x 24 + 44	
169+	q'c-c'c		
155+55	10' x 18" - 24'	Box	

Spent 5 hrs on Spurs

70⁺ Rail at Lihuliy

70⁺ Splendid Saus.

60⁺ " " on Spurs

Treplates

Rail Braces

Conklets about size

Sta 140+

" 167+

~~200+85~~

~~285+10~~

Tie on same curve posts
14+5 Braces

Plank road crossing

Passing 30 yds

bedding 30 yds

sleep oak Brackets

Pine Insulation

Plank bridge length

" Boxes

Rails extra

" Box anchors + Cement anchors

Another Insulation

Head Gungo Insul.

4x4 ends around

9' Brackets

Elliptical Brackets

3rd Tr. Creek — 40+55

West Bank — 40+46

East " " — 40+35

Tieoff #14 — BM — Elev. 51.31

Find 519913 in south end on right
at Sta. 44+32

Point 4600' below

345
90
31.050

31+0.55
29+25
1.805
1.50
3.05

Go to Sta. 75+05

Crack road

Metallic Cloth tape

519913 at grade change

grad. Sta. 20.30 = 1.13.6
+ 0.04

Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

MINUTES	LKS.	MINUTES	LKS.	MINUTES	LKS.
1	2 $\frac{1}{3}$	21	49	41	95 $\frac{2}{3}$
2	4 $\frac{2}{3}$	22	51 $\frac{1}{3}$	42	98
3	7	23	53 $\frac{2}{3}$	43	100 $\frac{1}{3}$
4	9 $\frac{1}{3}$	24	56	44	102 $\frac{2}{3}$
5	11 $\frac{2}{3}$	25	58 $\frac{1}{3}$	45	105
6	14	26	60 $\frac{2}{3}$	46	107 $\frac{1}{3}$
7	16 $\frac{1}{3}$	27	63	47	109 $\frac{2}{3}$
8	18 $\frac{2}{3}$	28	65 $\frac{1}{3}$	48	112
9	21	29	67 $\frac{2}{3}$	49	114 $\frac{1}{3}$
10	23 $\frac{1}{3}$	30	70	50	116 $\frac{2}{3}$
11	25 $\frac{2}{3}$	31	72 $\frac{1}{3}$	51	119
12	28	32	74 $\frac{2}{3}$	52	121 $\frac{1}{3}$
13	30 $\frac{1}{3}$	33	77	53	123 $\frac{2}{3}$
14	32 $\frac{2}{3}$	34	79 $\frac{1}{3}$	54	126
15	35	35	81 $\frac{2}{3}$	55	128 $\frac{1}{3}$
16	37 $\frac{1}{3}$	36	84	56	130 $\frac{2}{3}$
17	39 $\frac{2}{3}$	37	86 $\frac{1}{3}$	57	133
18	42	38	88 $\frac{2}{3}$	58	135 $\frac{1}{3}$
19	44 $\frac{1}{3}$	39	91	59	137 $\frac{2}{3}$
20	46 $\frac{2}{3}$	40	93 $\frac{1}{3}$	60	140

TABLE FOR RUNNING ON SLOPES.

In the following table the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

Angle	COR. IN LINKS	Angle	COR. IN LINKS	Angle	COR. IN LINKS	Angle	COR. IN LINKS
0		0		0		0	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07

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